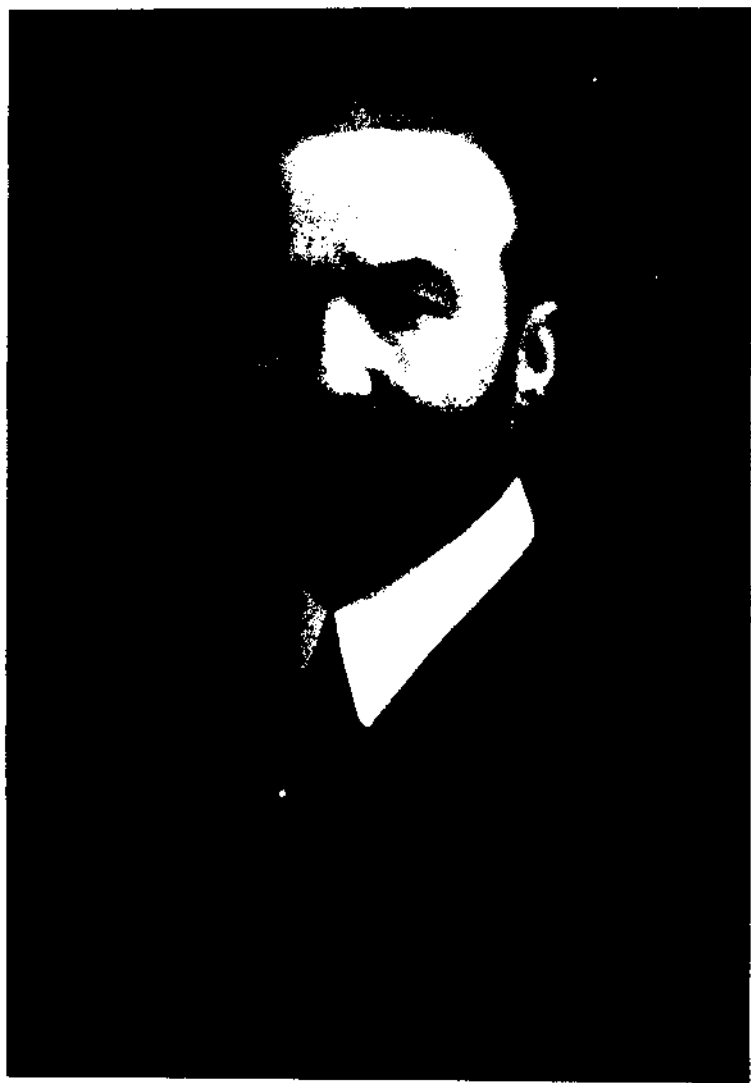


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SURGEON EXTRAORDINARY



J. B. Murphy

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The Life of J. B. Murphy

By

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With a Foreword by

A. J. CRONIN



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TO
ALLEN BUCKNER KANAVEL
& FRANKLIN H. MARTIN

The fishes that go deep in the water may be hooked; birds that go high in the air may be shot; but man's heart only is out of our reach.

CHUANG-TSE

FOREWORD

TO my mind the main defect of most modern biographies is their failure to be convincing. So many writers resurrect the bones, rearticulate the skeleton, yet fail lamentably to re-create the man. They are painstaking, precise, and polished—and oh, how excruciatingly dull!

Not so Dr Loyal Davis, who has in this volume achieved the most triumphant effects of life and action. The reason is twofold. Firstly, Dr Davis has a style which is miraculously vital. Secondly, he has, in the life-story of J. B. Murphy, a subject which I can only describe as magnificent.

J. B. Murphy was not only a great man and a great surgeon, who, beginning life in the traditional log cabin, got near enough to the White House to attend professionally the President of the United States. Murphy was also an individualist, fierce and unashamed. And, since the profession of his adoption demands an absolute conformity, the upward thrust of Murphy's career was marked by many a hot encounter with authority and by much exciting drama. What a fellow he was! I suppose all surgeons are, in a way, dramatic figures who enjoy, even though it be subconsciously, a sense of their own effects. But Murphy was a super-dramatist who played the lead in his operating theatre, self-confident and steeled, as though aware that life and death stood waiting in the wings.

I often heard my old professor of surgery, Sir William Macewen, speak with admiration of Murphy. And I fancy Macewen's feeling was less for the technician, less for the inventor of the intestinal button—which was after all no more than a passing contribution to the mechanics of abdominal

surgery—than for the bold, direct, devil-may-care Irish-American who so often set the medical profession by the ears.

Murphy was, indeed, a buccaneer on the conventional sea of American medicine. And it is just this quality which emerges so splendidly from Davis's book—that careless defiance of authority, that heroic fulfilment of a troubled destiny. Mark you, Davis has not made the mistake of deifying his character. He holds the balance fairly, gives us a true picture of the man, who, for all his moments of nobility, was also perverse, sentimental, irritable, and even mercenary. So fine is this feat of characterization, bare fact takes on new colours, becomes more thrilling than any fiction. In short, had this biography come to me in novel form I could have classed it with such memorable portraits as Arrowsmith or Elmer Gantry.

It is many months since I have enjoyed so glorious a book. I detain you from it no longer.

A handwritten signature in dark ink, reading "A. J. Bonner". The signature is written in a cursive, flowing style with a long horizontal stroke extending to the left from the first letter.

CHAPTER I

JOHN B. MURPHY'S story begins many years before he was born. With the opening of the nineteenth century a new prosperity came to Ireland, the home of his parents. In spite of what was probably the worst land system in Europe, the Corn Laws had increased tillage and improved agriculture; exports had increased, and the price of land had risen. While farms averaged from three to fifteen acres and large families were the rule, the cottiers had other food than poetic memories and hopes for the restoration of the *Dark Rosaleen*.

With a bit of a pig in the sty, a cow for milk and butter and cheese, a fine field of potatoes, and a smaller one of cabbage, a man knew that his family would be fed. Nor did the planting and tending of the little crop take all a man's time; and most of the cottiers were employed by tillage farmers, by cattle-breeders, or in one of the rapidly growing industries—milling of grain, malting, brewing, or distilling. A large number, too, were employed in the cottage industries—the weaving of linen or of woollen goods.

Then in 1845 from America, which had sent the potato, came the potato blight. All Europe suffered from the scourge, which reached its height in 1846-47. In Ireland the effect was terrible beyond the telling. Each year the fields were planted and carefully tended. Each year they gave promise of fruitfulness, then suddenly became putrefying wastes.

The British Government instituted relief on a large scale, distributing £9,000,000 worth of maize alone to the starving folk of Ireland. But in spite of speedy and well-organized aid, hundreds died of sheer hunger. All barriers to emigration

were taken down, and the eyes of Ireland turned to America, the land of plenty.

Among the poorest of the poor were the Murphys of County Limerick. The father, a cottier who worked for a tillage farmer, had always been hard put to it to feed his brood of growing children. With the coming of the Famine his case was hopeless. By the end of 1847 all the family possessed, except the clothes they lived and slept in, had been sold for food. The sty was empty, and so was the tigh which had sheltered the family cow. Numbed by hunger and hard labour, the family grew physically and intellectually weary. All except Michael, the youngest; and he, with a stronger body than the others, remained alive and alert.

Young Michael Murphy listened with eager ears to the stories of America, a country where land was cheap and where any man by hard work could earn his own acres. What if it did cost twenty pounds to reach the shores of the new and golden country? Twenty pounds could not be saved in a lifetime by the likes of the Murphys; but there was nothing to keep Michael from shipping as a sailor—and what was to keep him fast to the ship that carried him once she reached New York?

Penniless and on foot, young Michael set out for Dublin.

II

Across the river Shannon in County Clare lived the Grimes family, middle-class landowners, mightily respected by cottiers like the Murphys, of whose existence they had never heard. But the Famine left the Grimes hardly better off than their own cottiers, and the seven sons decided to emigrate to America. Ann Grimes, the only girl in the family, dauntlessly refused to be left behind, and with her brothers made the long and weary journey across the Atlantic.

Five of the Grimes brothers elected to remain in Boston, their port of arrival. There they soon found work and a growing colony of their own kind. But Thomas, the eldest and the only one of the brothers who had received a college education, James, one of the youngest, and Ann refused to be turned aside from the purpose which had made them leave Ireland. They had come for land, and land was to be had for the asking in the West. They left Boston for New York; then up the Hudson to Albany; six days thence to Buffalo by way of the Erie Canal. But let one of these emigrants, writing home, tell of the trip from Buffalo:

. . . We landed in Buffalo on Saturday, 25th, at 3 o'clock in the morning. Our journey from Albany to Buffalo was one of moderate comfort. We stayed in Buffalo for twelve hours, leaving at 3 o'clock Saturday afternoon, and arrived at a place called Fair Port about 8 o'clock on Sunday morning to take in fuel. We got to Cleveland about 12 o'clock noon, and remained until 6 o'clock on Monday morning to get one of the cranks hooped which had cracked with being keyed too tight. We called at a place called Toledo, on the Mamo [Maumee], a river in the state of Ohio, at the west end of Lake Eri[e], a very unhealthy place. The next place we called at was Huron, which is a small town at the south end of Lake Huron. We took in a quantity of wood. On Wednesday we called at a place called Prestkeil [Presque Isle], on the west side of Lake Huron. The inhabitants support themselves by fishing and supplying the steamboats with wood. On Thursday we called at Manatoo [Manitou]. . . .

And so on and on to Green Bay, Wisconsin, where they arrived after weeks of waiting for boats and good weather; of sleeping on wet decks with sticks of wood for pillows; of going hungry and thirsty; of seasickness and the dreaded cholera; of fevers the names and natures of which they did not know.

But at last they came to the frontier, the promised land—

only to find that land was not, as they had been led to believe, free. On the contrary, even there in the wilderness itself land was as high as two and a half dollars an acre. Seeking the cheapest and best land available, they pushed on south-westward until they came to a little town called Appleton, which in that same year—1848—was chosen as the site for Lawrence College. With their few remaining dollars Ann, Thomas, and James were able to buy a quarter section four miles west of Appleton.

III

Michael Murphy, who had succeeded in working his way across the Atlantic, was drawn to the West by the same lure which had brought Ann Grimes and her brothers. He wanted land—cheap land. Working as a stevedore and sailor, he reached Green Bay. Once on shore he had little difficulty in finding work. There was a brisk demand for land; all of it had to be surveyed, and Michael became a surveyor's helper.

Then came the building of the Fox River Canal, and Michael was on hand when work started on the locks at Appleton. For weeks he carried and helped place the heavy stones; that job ended, and, with money in his pockets, he turned his face to the farms. Chance took him to the door of the Grimes' cabin.

Michael was tall and fair, the personification of strength and friendliness. Thomas and James needed help in clearing their 160 acres of wooded land. To be sure, they could pay but little for help, but Michael said it was not money that he wanted. He was willing to work for a piece of land, something that they did not want. The bargain was made. Michael to pay with labour for sixty uncleared acres.

Nor did Michael give Thomas and James cause to repent of their bargain. Genial as a companion, at work he was worth three lesser men; tireless with the saw and axe, he

gave them more than full measure in hours and effort. And if, on moonlight nights and on days when they thought the weather too bad for work, Michael wished to be cutting down trees on his own sixty acres, why, that only proved what a wise choice they had made in choosing a helper!

But when Michael Murphy stood before them and asked for the hand of their sister Ann in marriage that was another story. To be sure, they worked side by side with him, ate at the same table with him: this was a new country, and its ways were not the ways of Ireland. But, after all, Michael Murphy was the son of a cottier, and how dared he raise his eyes to Ann Grimes? Shocked to anger, their refusal to consider Michael as their sister's suitor was prompt and pointed.

Brothers and fathers are hard to please when it comes to husbands for their womenfolk, but Thomas and James may well have had another and more selfish reason for their refusal than the matter of difference in birth and rearing. Ann was a skilful home-maker: she cooked and washed and wove and sewed for them. What could they do without her?

The brothers uttered their edict, however, without reckoning with Ann. They forgot that they were not living in the old country, in County Clare; that the conventions that might have ruled Ann's life there meant less than nothing in the Wisconsin wilderness. They forgot also that Ann had a mind of her own. She respected Thomas as the scholar of the family; James was perhaps her favourite brother; but love was love, and this was America, where a man stood on his own two feet and nobody worried about his antecedents or the class into which he might have been born.

IV

At St Mary's, a little log church in Appleton, a circuit-riding priest read the service that made Ann Grimes the wife

of Michael Murphy. The year was 1849; the season was spring. The happy couple went home to the sixty acres of Michael's holding. There, working with unflagging energy, carrying loads calculated to break the back of the ordinary man, Michael had built for his bride a cabin of logs—a spacious affair for that part of the world in that it had two rooms downstairs, the smaller to be used as a kitchen, the larger for living in. Over the two was a huge unpartitioned room for sleeping. He had smoothed the large logs of white oak and elm with an adze. The supports of the roof and of the chamber floor were small, round timbers of tamarack, cedar, red elm, and ironwood. Here, in their snug shelter, with its thick, hand-hewn, clay-chinked walls, the two pioneers set up house-keeping and began their life together.

On August 5 of the following year Michael, who had made his axe ring through several of the sixty acres, bought the whole tract for one and a quarter dollars an acre. Now at last he had a farm of his own. When the deeds were signed he asked a favour of Ann. He wanted her to write to his mother in Ireland and tell her that they had got their own land.

Another letter left Ann's hand for County Limerick the following December—that of 1850—as soon as she was able to be about after the birth of their first child, a boy named Daniel. Michael's mother would ask the postman to read it to her, and she would be very happy when she heard the news. To her neighbours she would boast that her son owned land, that he had a wife and child, that they wore shoes of real leather and had meat in the pot every day in the week. She would tell that to her neighbours, and soon one by one the neighbours' children would disappear, bound for the land of opportunity. They were coming from Ireland by thousands, coming to seek their fortunes in the United States and Canada, where there was neither famine nor overcrowding.

Meanwhile Michael worked hard clearing the land, plough-

ing, and planting. There were not only the trees to be cut, but stumps to be burned or pulled. But the virgin land was rich and yielded bountifully, and by almost superhuman effort Michael was making a fine farm where there had been only heavy timber. And, as though sixty acres were not enough for one man to work, he increased his boundaries. Forty-four more acres he purchased from Ann's brother James, paying 275 dollars, and from Thomas he bought another strip of twenty-four acres for 150 dollars. The value of land was increasing as year by year more settlers appeared.

More children came to bless their home—Michael, junior, Frank, Ellen, Lucinda, and finally John. They were prolific folk on whom the Lord smiled often.

V

John Murphy was born on December 21, 1857. Throughout the night of the 20th, with wind howling outside and the snow piling up against the doors and windows, Michael Murphy had sat watching the woman he loved. The children were asleep up-ladder, and Michael had pushed Ann's bed up to the hearth, and, sitting beside it in a big wooden rocking-chair, he fed log after log to the blazing fire in the huge fireplace.

Ann, loath to send her husband out into the blizzard, refused to admit that she was in labour, and needed the presence of Grandma Moore, the midwife. But near dawn she could conceal the truth no longer, and Michael in greatcoat and beaver cap set out in the snow and darkness. An hour later, when he returned with the midwife, the baby had been born. It was a boy.

With the quickness and skill born of many experiences Grandma Moore looked to the mother, and then turned her attention to the baby. She gave the fat little red body his first bath with goose grease and warm water, dressed him in a

woollen sack, and laid him in the shelter of Ann's warm body. Before Ann slept she heard Michael tell Grandma Moore that they would call the baby John—the name Ann had wanted to give him.

VI

John Murphy was christened at St Mary's, the same little log church in which his father and mother had been married. The same circuit-riding priest officiated. Dressed in their Sunday best, the Murphy family rode into Appleton. The new baby's christening gave them reason for one of their rare holidays. With his little brood snuggled warm under the buffalo robes in the bobsled, Michael Murphy walked the four snowy miles, proudly driving his yoked team of oxen. Truly, the Murphys were getting on in the world, and so was the little town of Appleton. Four years earlier it had become incorporated. Lawrence, the Methodist college, was nine years old. With the incorporation had come a high school. The canal was doing a good business and was hauling civilization westward.

Tom Grimes, the scholar, had found a suitable wife in Appleton. The other Grimes boys, not doing so well in Boston as they had hoped, were drifting to Wisconsin and taking up land. Section 31, Township 21, Outagamie County, was a Grimes-Murphy community. These Irish pioneers were in a fair way to establish a dynasty. The light of fortune had turned on them at last; they had touched bottom and were on the rise. Their acres were wide and fertile; their children were many and whole; and of them all none were happier than Michael and Ann Murphy.

Already Daniel Murphy, who was seven, and the younger Michael, "going on six," were helping their father on the farm; and, young as they were, their hands had effect. The Murphy farm was spreading; trees and stumps were being

removed, stones were being taken from the freshly turned fields. Each year the plough bit into new acres of the virgin soil. There was work to be done from sunrise to sunset—ploughing and sowing, harvesting and clearing. There was never enough time for the elder Michael; hands were too few to satisfy him; there was never enough rain or sunshine. The great body of the man set a pace for his sons that few men could have followed. Persevering, exacting, and indefatigable in labour, he drove his boys with unflagging zeal. But the Murphys loved their father, for Michael was affectionate and kindly; and if his temper was hasty, so was his repentance.

Ann could match her husband's *tempo* in work and in the warmth of her affections. She was capable and strong; her whole aim in life, apart from making her husband happy, was to educate her children. Perhaps nothing gave her so much happiness as the sight of her children returning from the country school, a mile and a half away, their books under their arms. There was no telling where their schooling would lead them! Now consider Daniel: he was a deep one, a thinker, quiet and moody. He never tired of sitting by himself and reading whatever he could get his hands on. There was no telling what he might become—perhaps a priest. She would save the pennies that he might follow the calling he desired. Then Michael, junior: he was not the student kind, but a worker like his father. And Frank: he was a cheerful, care-free boy, dreaming always of living in a city where there was much going on. Ellen, romantic and full of laughter. Lucinda, sensitive and retiring, though the more beautiful of the girls.

Ann could see all her children clearly except her youngest, John. The most agreeable child of the brood, he always did what he wanted to do, after pleasing everybody else. He was as full of fun as Frank and seemingly as careless. But there was another side, as serious as Daniel. Left much alone while

the other children were at school, the child at four or five showed himself to be curiously independent, imaginative, and inventive. He would wander the woods for hours, and drive his mother to distraction with questions about the things he had seen; or, alone, he would tramp the two miles to the home of his Uncle Thomas, there to play with Margaret Grimes, his own age and his favourite among the cousins.

In spite of his zeal for labour, Michael Murphy made of Sunday a day of rest. In summer the boys spent the long Sunday afternoons fishing or swimming in the river. Young John refused to learn to swim, having an inborn fear of the water; and, while fishing remained his favourite sport to the end of his life, he never overcame his early fear and learned to swim. The other seasons brought other joys: there were harvest parties in the autumn and Christmas parties to relieve the winter.

In winter, too, the boys trapped for musk-rats and rabbits, for squirrels and bobcats. While still very young they learned to handle rifle and shotgun. Often in the severely cold weather wolves came down from the hills. The Government paid a bounty of from five to ten dollars for a wolf-skin, and that was worth hunting for. Johnny trailed along after his brothers, and sometimes, not often, he was allowed to shoot. Powder and lead cost money, and were not to be wasted. When they brought bounty money from the wolves they killed Ann put it in the teapot that held her savings. The education she meant to give the young wolf-hunters would cost money, and it was well that they earn part of it.

For all their land the Murphys saw little money. But it was hard to feel poor in the land of plenty. They grew fine crops of wheat and corn and potatoes. There was milk for the family and to fatten the pigs, whose meat was a year-round staple of diet. Sometimes Michael shot a deer to vary the round of salt pork, smoked beef, and bacon. The small game

trapped by the boys, the fish they caught in the river, all went to enrich the pioneers' table. The woods gave an abundance of wild berries to be dried for winter use. Neighbours exchanged the garden seeds sent from the East, carefully storing the seed from each kind, so that the supply might grow in bulk and in variety. Coffee was eked out with parched corn or carrots; tea with dried leaves from wild herbs; tobacco with kinnikinic—a mixture of dried leaves and the bark of the red sumac or willow.

Clothes were another matter. Ann Murphy, like every other pioneer woman, made every garment the family wore; knitted the many pairs of heavy woollen socks it took to keep the feet of the family warm. Sunday clothes were carefully cherished, and were handed down from father to son, from mother to daughter. Even the blue denim of everyday use was passed down the family, beginning with Michael, the elder, and ending with Johnny. By the time it reached him, the youngest, it was so covered with patches that Ann said her baby looked like a patchwork quilt.

The Civil War, which broke out when Johnny was four, changed things in Wisconsin but little. Where there had been three horses on the farm, now there were only two. Such good prices were offered for sheep that it was better to sell than to shear them. There was no sugar to be bought, but precious little the Murphys ever bought, anyway. They went on using syrup and sugar made from their own maple-trees. Hot-headed Michael wanted to enlist when the Government representative came round to buy a horse; but Ann put her foot down. A man with a houseful of young children owed his first duty to them and to his wife. It is said that he did enlist in the third year of the war, when it seemed that the Union, in spite of General Grant, would be beaten; but there is no record of his enlistment in the War Department. It is probable that he belonged to a Home Guard unit, and

helped chase out some of the mine-owners who had come up from the South with their slaves, knowing all the while that slavery in Wisconsin was against the law.

Being eight years old when it ended, Johnny remembered little of the reverberations of the Civil War. He remembered that on one occasion, when a soldier came to Appleton on furlough, he and a number of other children of the town trotted along behind admiringly. He remembered when the man came to buy the horse, because the horse they sold, a colt, had been his favourite. He remembered a man who used to come to the farm and discuss the war with his father: the two of them would lean against the barn or tramp across the fields, talking as hard as they could.

By the time his brothers Daniel and Michael were out of the elementary school and in the high school Johnny was tramping to the little district school with his sisters and his brother Frank. Ann Murphy's ideal of education for her children was being realized, and her joy in their progress was great. Even her baby was doing well: at eight he was in the second class and happy in learning things, a good little lad, always busy, and nearly always whistling a tuneless air which he insisted was *Auld Lang Syne*, but which nobody recognized without being told. That tuneless air, whistled softly, was to stay with him all his life, and no amount of teasing about it seemed to embarrass him, either in childhood or after he was a man, and a famous one.

In the little schoolhouse, which had but one room in which eight classes were taught by one teacher, Johnny learned his A B C, learned how to spell, learned arithmetic and something of algebra, something of grammar, of geography and of history, and how to get along with his fellows. Even thus early in life he possessed the infectious charm which was to open doors for him for the rest of his life. The young teacher, a student working his way through Lawrence College,

liked the sandy-haired boy in the patched breeches, and found him a satisfactory pupil; but there was nothing to tell him that young Johnny would go far on his very real genius, that the young head and heart and hands held staggering possibilities.

CHAPTER II

FAR and away the greatest gift Michael and Ann Murphy made to their children was to instil in them the importance of education. Denied the benefits of learning themselves, but being possessed of profound common sense, they pointed out the fact that learning was not for the purpose of making work less and easier, but for the purpose of making it more effectual and productive. In later years John Murphy was fond of quoting his mother's creed: "If you are educated there are no man's achievements which you cannot equal or excel, provided you have industry and integrity and are temperate."

Temperance was as much a part of Ann's code as were any of the Ten Commandments. She reared her children to fear the devil, liquor, and not another thing on the face of the earth. There was no leniency in the rules she set up for her children to live by—honour, decency, and the value of money. All their children reflected Ann's and Michael's stern upbringing. Daniel went to Montreal and became a priest; Lucinda went to Notre-Dame and became a nun; Frank, who died at the age of twenty-eight, was a pharmacist in Chicago. Only the laughing Ellen refused to follow the completely narrow path of her brothers and sister: she escaped as early as she was able and married a railway conductor—the romantic figure of that era.

John Murphy, no less than his brothers and sisters, reflected his parents' unyielding code. He never drank intoxicating liquors, and only upon rare occasions would he so much as sip a glass of wine. He was faithful to the Catholic Church without question; he was honourable—even though accused

of being unethical—and he remained to his death careful of money. If his early training made him self-seeking, if it did not make him as thoughtful of the poor as he was of the rich, that perhaps can be forgiven. For his parents' endless talk of the value of money and the stern example of self-denial, impressed upon him in his early childhood, undoubtedly left in John Murphy's mind an abhorrence of poverty and a hard will to escape it. Few doctors die millionaires, but John Murphy did.

Michael Murphy, the father, as he became older, grew more and more the zealot, more and more uncompromising. Perhaps he became so engrossed in work and in making his sons understand its importance and do their share of it that he became unjust. He was almost fanatically obsessed with the conviction that indolence was the most common barrier to progress and the most frequent cause of failure.

Whereas Michael taught their children the virtue and the necessity of courage, industry, determination of purpose, and, above all else, discipline in the husbandry of small resources—the value of which cannot be denied—Ann emphasized the intellectual limitations of herself and their father. She repeatedly pointed out to them that there had been many great men and men of genius who had but few opportunities for attaining "book knowledge," but who had nevertheless managed to educate themselves. Ann's ambitions for her children, then, were no less than Michael's, but of an entirely different kind. John would live to reflect them both. The children were seldom permitted to lose sight of far-away goals. Home from school, they did the chores, ate supper, washed up the dishes, and plunged into their school-books. Their homework, therefore, was accurate and exacting. The Murphy children were well recognized as the cleverest thereabouts. When anything is difficult to obtain, as an education was in that day, it is not regarded lightly.

II

John graduated from the country school at the age of fifteen. For eight years he had tramped a path through the fields from his home to the little log school. Included in the speech-day programme there were recitations from certain leading pupils, and the youngest Murphy boy made his first speech on the subject, "Youth's Big Job." He spoke with so much assurance that he convinced his audience and himself that the problems of the future were well in hand.

There followed a summer of working on the farm, of regular chores and occasional picnics, of haymaking and harvesting, of pruning and picking, of dish-washing and canning, of churning and washing. It was work, work, work, from morning to night. His brother Daniel had gone to Montreal; his brother Michael was a big, strong fellow who took to farming like a duck to water, and was, therefore, his father's favourite son; Frank was older, but sickly. Ellen was in love and of little account, and Lucinda, left to help her mother, was a strange, quiet, ineffectual girl who did what she was told and little more.

Following the harvest, autumn came, and with it came school-time. As had his brothers and sisters before him, John matriculated in the Appleton High School, and, as had the others before him, he was to live in the town during the week and to come home at week-ends to help on the farm. Four miles were too far to walk twice a day, his mother said, and so she made arrangements for him to board with a cousin of hers who had but recently come from Ireland. The cousin, Mrs Driscoll, was a kindly woman whose own son, but a few years older than John, had decided to get a more practical education than Appleton afforded by joining the navy. Mrs Driscoll was happy to have a young man about the house, even though he could only suffer in comparison to her own

son; and especially was she pleased because he would bring bacon, milk, and eggs to pay for his board and room. On the other hand, the arrangement was a fortunate one for the lad, because he could not have afforded a regular boarding-house.

The boy was still under the strong influence of his mother and father, inasmuch as he went home for two days each week. Every Saturday morning, snow or shine, found him on his way down the road to home. All day long he would work on the farm, helping his father, and then on Saturday night he would seek out Margaret Grimes, also a student in the high school, and, together with other young people their own age, they would play games, pop corn, or have a taffy pull. On Sunday evening he would set out, packing enough provisions for a week's fare, and retrace the four miles to Appleton and Mrs Driscoll.

The lad quickly came under the influence of one of his teachers, R. H. Schmidt. Schmidt was a gregarious German who had emigrated to America at the age of seventeen. With but a scant grammar-school education, he somehow had entered the University of Wisconsin, from which he graduated at the age of twenty-two. He was young, radical, indifferent to form, and heedless of conventionalities, a staunch patriot, a passionate lover of democracy. He was concerned with science and facts rather than with theories and superstitions, and was therefore startlingly refreshing to a boy rigidly reared, as was John Murphy. Vital, inquisitive, surcharged with abnormal energy, he was untiring in his life's work. He believed teaching was the most important mission a man could have on this earth. No day or night was long enough for him to work with his pupils. Thus the perfect teacher, as rare in that day as in this, made a powerful impression on the green young minds of those frontier children.

Transplanted from a familiar world, John Murphy was awed, surprised, and eventually delighted to discover that

there was so much more to learn than he ever had expected. It was a big, breath-taking step from the A B C's of the country school to the unlimited unknowns which Schmidt suggested; and it is no wonder, then, that John came to worship Schmidt as his first hero. For Schmidt, besides being personable and sincere, was not only his pupils' teacher—he was their companion. He played their games and attended their parties. He established a Friday evening "literary and debating" society which became the cultural centre of Appleton. Through this medium he encouraged a thorough investigation of the topics brought up for discussion, and guided his students along the stepping-stones to logic and argument. His favourite pupil was the tall, slim, sandy-haired boy with the blue eyes, who became so brilliant in debate. In truth this Johnny Murphy was a lad to delight a teacher's heart—bright, willing, enthusiastic, and unbelievably sincere.

"Now, Johnny," Schmidt would say, "remember to keep your voice at a lower pitch. You begin well, but soon you're sounding like a cross-cut saw. Don't let your emotions overcome your logic. What I like best is your assurance. I can never doubt you believe implicitly in what you say. And, Johnny Murphy, that's an art!"

John all but idolized his teacher. In his eyes Schmidt was all that a man should be: he was the epitome of knowledge and worldliness, a hero-philosopher beyond all other men. That Schmidt probably had little sense of humour, that he might have been a boaster making a display of his learning, that he might have had any shortcomings whatever, would have been denied with young Murphy's last gasp.

To his mother he said, "He is the finest man I'll ever know."

"What about your father, son?"

"Well, after Father."

The boy, of course, could know very little of associations,

of the attraction of one personality for another. Schmidt was the lad's first intellectual influence, was the first one to tap the boy's wealth of ideas, the first to unleash his restless, inquisitive mind. Throughout his life Murphy was to carry traces of the German's teaching. It set him on the road towards becoming a fine and forceful speaker, a hewer to the line of logic, and one who could more than hold his own in debate. Besides being a teacher, Schmidt was interested in chemistry and in its practical application to the treatment of human ailments. That was another germ he planted in young Murphy's mind.

III

There is the story of how John Murphy got a middle name. Unlike his brothers and sisters, because of his mother's feeling that he should be named simply John, he was given no middle name. This omission troubled him, and it was a yawning gap by the time he reached sixteen or seventeen. There was, it seemed to him, a definite deficiency in his life. Other young men had middle names which permitted at least an initial; but what could he do with John Murphy? His only alternative was J. Murphy, and to him that seemed without distinction. He began, therefore, looking about for a name to remedy the situation. In this quest he asked his girl cousins for suggestions, not daring, of course, to mention the subject to any of his fellow-males. Margaret Grimes, being his favourite cousin, had the first choice, and when she suggested Benjamin he forthwith adopted it as his own. Thus the fly-leaves of Loomis' *Elements of Geometry*, Hart's *Manual of Rhetoric and Composition*, as well as his other school-books, were covered with "John B.," "John Benjamin," and, finally, "J.B.," which it was always to remain.

IV

During his third, or perhaps it was his fourth, year of high school, because of his interest in and knowledge of chemistry, J.B. was given a part-time job by the town druggist, Alexander Lewis. The boy's work, which included sweeping out the store, running errands, and taking stock, as well as rolling pills, occupied the afternoon hours and Saturdays. Now he managed to get home only on an occasional Sunday.

Alexander Lewis's drugstore was on a corner made by two dusty, or muddy, streets. Unlike the druggist of to-day, Lewis was concerned only with the concoction and dispensing of drugs, and with the sale of toilet articles, mostly soaps, sweet waters, and perfumes. There were the usual jugs of coloured water in the otherwise empty windows, and inside there was the ever-present blended odour of chemicals and drugs. The two most popular items of sale were calomel and paregoric. The standard wage for a job such as J.B.'s was fifty cents a week; and it is fairly safe to assume that forty-five of the fifty cents, if not the whole half-dollar, went into the lad's savings.

Lewis was a typical country druggist—spectacles, uncombed hair, braces, sleeves rolled up. He was a potterer, absent-minded, kind, impractical, and unbusinesslike. Evidently he was very fond of young Murphy. The boy certainly respected him. J.B. admired the druggist's calm nature, his unruffled emotions under any circumstances, and tried to imitate him. Murphy, being an impressionable youth, certainly tried to take for his own what he considered the man's best gestures and finest traits.

Above the drugstore, as was the custom for doctors in that day, because of the close relationship between medicine and chemistry, the village physician and surgeon had his office. Dr H. W. Reilly was a kindly, middle-aged man, and,

like most frontier doctors, a sincere practitioner who put his work before gain or glory. In a single day he was likely to be called upon to set a broken leg, deliver a baby, pull several teeth, administer pills and purgatives to sufferers from chills and fever and various infantile complaints; and quite possibly would wind up by doctoring a sick horse or cow. Means of communication were neither swift nor far-reaching, and it was impossible for the overworked doctors of the frontier country to keep up with the advances which were being made in medicine. How he had come to Appleton and why he stayed are questions the answers to which Time has covered all too well. Many are the small-town doctors who have laboured away their lives in complete obscurity.

One afternoon J.B. was engaged in filling one of Dr Reilly's prescriptions for Bland's pills. The ingredients had already been mixed, and he was doing his best to make the pills smooth, round, and uniform. Lewis often had told him that a good druggist could be judged by the finish he put on Bland's pills.

Suddenly Dr Reilly's head popped in the back-door which opened on to the stairway leading up to his office. "Hey, Bub, come and give me a hand, quick!"

J.B. dropped his work and leaped after the doctor, sensing a matter of life or death. He took the steps behind Reilly two at a time. At the top Reilly hastily puffed out an explanation: "Got a fellow here with a bad cut on his leg and a dislocated shoulder. His durned fool brother's fainted, and I've got 'em both on my hands. Think you can stand a little blood?" he asked.

"Oh, yes, sir!" was the quick, excited reply.

They quickly lifted the faint-hearted brother on to a couch and turned to the injured one. The latter had lost considerable blood before reaching Dr Reilly, and had collapsed into unconsciousness. Now his face was pale, moist, and cold. The wound was in the calf—a ragged, ugly gash. The doctor had tarried to apply a tourniquet before seeking help.

"Cut off that pant leg, Bub," Reilly said, selecting the needles. "Don't touch the tourniquet until I'm ready, and then, when I tell you, loosen it slowly." He worked quickly, brought forth suture material from his coat pocket, and proceeded to thread four straight needles. "I'll have to tie off that big vessel." He cast a sidelong glance at his assistant to see how he was faring. J.B. was all right. Fascination, not nausea, had hold of him. As he threaded the needles Reilly stuck them in the lapel of his coat, where he might get to them easily. Now he knelt down.

"All right," he said. "Hold tight. Here we go." And he tied off the severed artery. Then, without making any attempt to cleanse the wound, he drew the tissues together with the sutures. "Now," he said, looking up at the boy, "you can loosen. Slowly now. Let it come slowly."

J.B. followed instructions perfectly. "That's the way," the doctor encouraged him. "That's the way." With the wound closed to his satisfaction, Reilly applied a dressing. The boy knelt close at hand, watching every move. He was experiencing the greatest thrill he had ever known.

"Now, Bub," Reilly said, shifting his position and sitting down on the floor, "put your hands here on his left shoulder and chin while I set his arm." The boy did as he was told. "Now you'll have to hold tight," the doctor went on, and began removing his right shoe. "Ready?" he asked, grasping the patient's right arm and placing his stockinged heel in the patient's armpit.

"Yes, sir."

Then, with one steady pull on the arm and a sudden thrust with his foot, the shoulder was set. "Whew! There it is, by George!" The boy was slow to come out of the spell; he kept looking at the patient. "Looks like everything'll be all right now," Reilly said. "A good drink of whisky'll pick 'em both up."

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J.B. looked up admiringly: he was impressed by the doctor's efficiency, by his directness, by his decision. The sight of blood had not affected him in the least. He said, "He won't die?"

"I think not," Reilly said. "He's got a good chance."

"But he would have died if you hadn't . . .?"

"In all probability." The doctor commenced wiping up the blood from the floor. "You'd better get along down to Alex now," he said. "He'll be giving me the devil for keeping you."

Young Murphy was washing the windows of the drugstore a couple of days later when Dr Reilly drove up.

"Hello, Bub! How's my assistant?"

"Hello, doctor!" the boy said, and went to hitch Reilly's horse.

"Could've used you this morning," the doctor said.

The boy stopped what he was doing. "Honest? What was it?"

"Had to amputate a hand."

"A hand?"

"Ely got his hand mangled up pretty badly. His wife helped me, but she had a pretty hard time. I thought of you."

"Wish I'd been there," the boy said, fascinated.

"I'll have to take you along next time."

"Would you, doctor?"

"Sure."

As the doctor started to enter the drugstore J.B. stopped him. "I beg your pardon, sir—but how's Hotchkiss getting along? The fellow with the bad leg."

"Fine, just fine. His pus is laudable. He's going to be all right."

"Gee!" the boy said. "That's wonderful!"

CHAPTER III

SCHMIDT was anxious for J.B. to follow in his footsteps and become a teacher, and at his insistence Murphy had been preparing to take the teacher's examination. Teachers were in great demand on the frontier. High-school graduates were given the opportunity to take the state examination, and if they passed were appointed to schools in the vicinity. With five of his fellow-students, J.B. formed a group which studied under Schmidt's direction to prepare for the examination. J.B. was successful, and was assigned to teach at the Nichol School near his home, the one in which he had spent so many hours of his childhood, the one from which he had graduated only four years before.

"Now, children," he found himself saying, as if in echo across the years, "you must pay more attention."

Six feet and slim, "like a bean-pole," the young teacher's square jaw was not without adolescent pimples; his bright wax-coloured hair, cut by his mother, showed definite indications of the use of a porridge-bowl in the process. Now, aware of the dignity his position demanded, he wore a jacket and necktie. To emphasize his points he made much use of the pointer, slapping it forcibly against the blackboard or on the wooden table which served as his desk. In his teaching methods he reflected his hero, Schmidt; dramatized the lessons, as Schmidt had done. He found much pleasure in playing mentor to untrained minds. Teaching gave him a sense of power, a feeling of omnipotence. He had the world in the palm of his hand. He found he had much to say, and here was an audience. Believing that he had been ordained

by unseen powers to give to those children much that would make their lives easier and more fruitful, he sailed into the job with a fervour amounting almost to fanaticism.

While he imitated Schmidt in part, his restless, individualistic mind devised new ways of making his pupils remember. Rather than use discipline, he tried to make the lessons so interesting that the children would become engrossed in spite of themselves. This is not to say that he did away with discipline entirely or that he was lenient; on the contrary, he was quick to deride and shame. The dunce cap was almost always in use in his classroom, for he was intolerant of stupidity, and he wielded the switch with no feeling of sentiment. He discovered within his own mind a vital, unsuspected imagination, and concocted story after story to prove his points. He reasoned that if he could teach more interestingly than the books the children studied then he should do so.

"What do you do with the stupid ones?" he asked his sponsor, Schmidt.

"Let them do the best they can. Concentrate on the bright ones."

"But it's our duty to pull the lagging up to the leading."

"Nothing in the world will make a stupid child bright."

He made games of lessons and gave prizes; he drafted certain children and made them take over the teaching. He busied his mind continually devising better methods of forcing knowledge into the children's heads.

But nothing burns itself out so quickly, perhaps, as a teacher's enthusiasm for his work; and this is especially true when the work at the outset assumes the importance of a mission. By the middle of the second term J.B. had begun to tire of his job. He came to understand that neither he nor a hundred like him would ever be able to speed up learning, that the greatest teacher in the world was Time. This realization was somewhat of a shock to him at first, because he had

so firmly believed he had been given a mission to lead the young out of the darkness of ignorance. Once he became convinced he could do little more than anyone else in teaching schoolchildren their A B C's teaching lost all interest for him, and not until several years later did his interest in it revive.

There was more of the missionary in J.B. than met the casual eye. He wanted to aid and enlighten mankind, to carry a message, to mitigate suffering, and improve living conditions; and at the same time he wanted to do these things spectacularly, dramatically, in a way that would bring credit to himself. The horror of being a nonentity, of suffering from obscurity, has driven many a man to spectacular deeds, to heroism, murder, and suicide. J.B. had no desire whatever to plod along day after day at work which in the long run might reflect glory on him. He wanted the glory, but he wanted it quickly. He was happy enough to supply the ideas, the impellents, particularly if they were startling. But once the task was well under way his interest lagged. Thus he was a fire quick to flame and, if slow, sure to wane. Had he become a priest—and he might very well have—he would have been a dynamic one who chose dramatic topics for his sermons, one who would have employed all the colour, ornaments, and ritual of the Church to attract and hold his congregation. He never would have been one to labour unheard and unknown in a small parish in the wilderness. His ambition, his nature, were entirely on the other side.

It was inevitable then that when young Murphy tired of teaching he naturally would seek another outlet for his energy and his idealism. The notion that he would like to be a doctor had been in his mind for some time.

He was in the habit of dropping into Dr Reilly's office every time he was in Appleton. On several occasions the kind country doctor let him go along with him on his ministering rounds and always when his route lay towards the boy's

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home. In this way J.B. learned with what respect and worship the doctor was regarded by the community. More so than any teacher; even the rich men and women of the town—the banker and the store-keepers—bowed down to him and were silent. As this realization expanded there grew in his mind the conviction that his ‘calling’ was medicine.

“The alleviation of human suffering,” he told his mother, “is the most important work in the world.”

“What about the Church? What about helping human souls?”

“After the Church,” he conceded.

“What about teaching and developing young minds?”

“Oh, doctoring is far more important, Mother.”

II

As it has a sly way of doing, Fate stepped in and opened the door. His sister Lucinda became ill. It was in March of a bad winter, and J.B. was dispatched on horseback over almost impassable country roads to fetch Dr Reilly. The wind and snow dramatized the situation in his mind. With a painful lump in his throat the young man raced his horse along, now slipping in the ice and slush and then stumbling through the drifts. It gave him a fierce joy to feel that he was an important actor in this drama, that upon him depended his sister’s life.

“Come quick, Dr Reilly! My sister Lucinda’s in terrible pain. It’s her stomach. She’s vomiting, sir, and seems about to die.”

Back through the night the two rode, the boy urging both horses on. And when at last they reached the house J.B. flung open the door and said, “The doctor is here!” as if he had been in a play. The lad thrilled at seeing his family’s faith and confidence renewed at sight of Dr Reilly. The

"Yes, Father," "No, Father," responses of their religion were translated into "Yes, Doctor," "No, Doctor."

Dr Reilly spread his coat-tails and sat down beside Lucinda's bed. Quietly, calmly, he observed her breathing, his bony, gnarled hands touching her tenderly. Now he slowly took out his big gold hunting-case watch, a fitting pendant for the heavy gold chain, and counted her pulse. He pulled her eyelids down, looked at the whites of her eyes, had her stick out her tongue; and then he rolled up his shirt-sleeve and laid his wrist across her forehead to determine her temperature. Finally and deliberately he examined her abdomen. Tender all over, she told him, but more pronounced on the lower right side. The boy watched doctor and patient, fascinated.

Lucinda sat up with their help, and the doctor placed an ear directly to her chest and then against her back, listening to her heart-beat and her breath-sounds. When all his diagnostic examination had been done Reilly, with some careful deliberation, looked up at the patient's anxious family and said, "Inflammation of the bowels. Keep her in bed and quiet. Don't give her anything to eat. I'll see her again in the morning."

For two weeks the doctor came regularly to visit Lucinda, and throughout this period J.B., whose determination was growing within him, contrived to see much of him. On more than one occasion the boy made an excuse to ride with the doctor into Appleton, although he had no business in the town and would have to walk back. But these meetings and conversations served to stimulate an interest in the boy in Dr Reilly, so that when at last, with Lucinda on her way to complete recovery, he told Dr Reilly how it was with him the doctor was more than kindly disposed towards him. They were riding along in the doctor's buggy in the later afternoon. Reilly looked at J.B. for a long time without speaking; then what he said was, "So you want to be a doctor?"

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"Yes, sir. More than anything in the world."

Reilly's good-natured face became serious; he shook his head and sighed heavily. "My boy, you don't know what you're getting into."

"I don't care, sir."

"It's hard work—a living—that's all."

"I know, sir."

"It's a thankless job, son. Lots of people are unreasonable, more never pay you. Only a few appreciate what you try to do for them."

"It's just something I've got to do, sir."

Reilly's smile came back slowly, and then he laughed, slapped the younger man's thigh. "Very well," he said.

"You mean——" the boy said, suddenly wild with excitement and joy.

"If you've got to do it, you've got to do it."

"Then I can!"

The doctor nodded. "But don't say I didn't warn you. You'll have to sleep in the office, keep it clean, accompany me on calls, run errands, study in your spare time, if any, and pay me two hundred dollars a year honorarium." He paused and looked at the youth. "Think it over."

"I've already thought it over, sir. When do I start?"

III

Murphy was lucky to have won the interest of this doctor of the old school, to have secured him as preceptor. A patient, gentle, honest man whose idealism in its own retiring way was as great as Murphy's, he would be patient with the lad, and yet would teach him as much as his young mind could absorb.

It was the custom for the medical student to start his studies in a doctor's office. Many never went on to a more

formal curriculum. More often than not the preceptor was an ignorant, careless, and lazy fellow who cared nothing for his student's welfare or future, but only for what work he could get out of him. At best it was a hit-or-miss sort of business which gradually transformed the raw medical student by a kind of canned-heat process into a more or less incipient mass that eventually oozed into the practice of medicine. If he had influential friends and was alert he might get a licence from the State without an examination, providing that particular State had happened to make provision for a licence. Then, with little knowledge but full authority, the informally created doctor would hang up his plate and try to wheedle patients from a thoroughly distrustful public.

Sometimes a preceptor, if he happened to be better informed than his colleagues and was more ambitious and energetic, would accumulate two, three, or maybe more students. In one case, before there was a medical school in Chicago, Dr Daniel Brainerd lectured to as many as eleven students. Naturally the early medical schools were an outgrowth of this preceptor system. Three or four leading practitioners would organize a medical school, more frequently than not without a charter. These schools, of course, were but a step or two ahead of the preceptor. Half-baked or slightly scorched practitioners came in to rest and brush up along with boys of no educational background. All were subjected to daily doses of lectures on anatomy, medicine, surgery, obstetrics, and *materia medica*. If the student stayed in the medical school for two years he graduated *cum laude*, though the second year was a repetition of the lectures heard in the first year. If the school had a charter some of these rough and quite unready students were invested with the degree of Doctor of Medicine. If the school had no charter very often its graduating class was shipped to a more fortunate institution where the degree was conferred.

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Dr Reilly instructed J.B. to send to New York for a Gray's *Anatomy* and a Draper's *Physiology*. He gave the boy the address of the publishers and told him to come in ready for work when he received the books. The four miles home were covered by J.B. in faster time than he had ever made before. His steps kept pace with the mental pictures which rose in his kaleidoscopic mind. Soon he had his mother in his arms and was dancing her round the kitchen.

"Dr Reilly's going to take me! I'm going to be a doctor! I start as soon as I get the books from New York."

"How much is it going to cost, eh?"

"I'll have to pay Dr Reilly two hundred dollars. I've saved almost enough. I thought maybe you'd find some way to help me——"

"Oh, you did, did you?" She turned away from him, went on with her cooking.

"You will, Mother?"

He laughed and hugged her and lifted her off the floor, to her delight and denunciation. Something in her face told him she loved him and was glad for him. "I knew you would," he said gleefully, as he ran to tell Lucinda.

IV

For the next few weeks the boy haunted the post office. His clothes were packed the day after he sent the order. Eventually the books came and J.B. hurried to the old doctor's office.

"Here they are, sir!" he cried, waving the books. "Now I'm ready to start."

Reilly looked up at him over his spectacles. "What've you got there?"

"Gray's *Anatomy* and Draper's *Physiology*, sir. They've just arrived."

The doctor put out a hand and took the books, opened the larger one—that dealing with anatomy. “Hummmm,” he said with satisfaction. “Think you can learn the names of all the muscles, organs, nerves, and arteries by heart?”

“Oh, yes, sir!”

There was the confidence. The doctor slammed the book shut, laid it on his desk, and indicated a chair. “Sit down, Bub,” he said. The youth obeyed. “There are some things I ought to tell you about this profession before we go any farther. Now that you’ve picked it out I want you to know it’s like being married. It’s for better or for worse, son. You’re going to be responsible for people’s lives, Bub, and there can’t be any dishonesty about it; there can’t be any half-way measures, any slipshod work. You’ve got to be honest above all else with yourself. You’ve got to give medicine and surgery all of yourself. The health of your patients comes first. I doubt whether there is anything of which so little is known as the human body. It’s your duty to find out about it for the good of the human race. I think you’ll agree that’s a big responsibility.”

Fascinated, the boy nodded, “Yes, sir.”

“You must never forget that medicine never takes anything for granted; there must be proof. Nature exposes; man diagnoses. For every disease Nature gives some indication. You’ve got to learn to recognize those symptoms and to treat the diseases effectively.” Reilly turned his face towards the brass spittoon and let fly; made a bull’s-eye. He shook his head doubtfully. “I shudder,” he said, “to think of a young man like you starting out to become a doctor. But I know you’ll see many strange and wonderful things in your day. I only hope you’ll live up to the ideals of the profession, that you won’t ever discredit it.”

“I won’t, sir,” the boy said solemnly. “I promise.”

Reilly’s face relaxed. He smiled. Doubtless he was glad

to get the sermon finished, because from everything that is known of him he did not like dreary speeches. "You could learn anatomy much quicker and easier if we had a body to dissect, but that's out of the question here."

"Yes, I know. There should be some provision in the law, don't you think?"

"That'll come some day. Civilization will catch up with science. It won't be long, either, before every medical student will be required to dissect a body before he can graduate. It ought to be a law."

"But what do they do now—the big schools?"

"Get bodies the best way they can. When I was in Edinburgh our professor had a hard time getting specimens to demonstrate dissections to us. He had to buy the bodies from a firm of three ghouls who did a flourishing business. Those grave-robbers (we called them 'resurrectionists,' 'fishermen,' 'body-snatchers,' and 'sack-'em-up men') made strange bedfellows for elegant professors. Their leader was a man named Merrylees—and what a gaunt, lanky animated skeleton he was! He might have risen from one of the graves himself! Then there was Spune. With his air of dignity and his preacher's clothes, he pretended to be scientific, made out his business was a profession and his work an art." Reilly laughed, took out his pipe and his pouch, put his feet up on his desk. "Maybe it was—a black art. Then there was Mowatt, with the imbecile's mind and the strong back; he supplied the physical power for the partnership." He stuffed his pipe, dropping tobacco over his spotted vest, from which hung the heavy chain. His mild eyes looked askance at J.B. The boy was digesting every word. "They tell the story," Reilly went on between puffs, "that Merrylees thought it would be a stroke of genius, when his sister died, to sell her body. But meanwhile his partnership with Spune and Mowatt had been dissolved over a few shillings, and those two worthies

had their own ideas about the woman's body. Respecting Merrylees' devotion to his sister, they resolved to steal her body themselves, but they forgot that Merrylees had been their brains. Suspecting they might try to snatch his sister, he waited until they removed the corpse from the grave, and then appeared in a sheet howling and dancing like a dervish. His former associates were scared out of their cart, and Merrylees thereupon took possession of it. He delivered his wares to his patron, and, as usual, drove a hard bargain for it."

"But, sir, why didn't your teachers refuse to deal with these men?"

"Ah, my boy, they couldn't have got along without them. They were the only source from which material for dissection could be purchased. If a resurrectionist was imprisoned the anatomists usually helped to get him out and supported his family in the meantime. If a professor refused to deal with them, or protested against their high prices, not only was he deprived of material, but he was marked for vengeance. The stronger gangs, by threats and bribing sextons, watchmen, grave-diggers, and undertakers, controlled the cemeteries and dictated terms to the teachers."

"But what about the law? Weren't they punished severely if they were caught?"

Reilly chuckled. "Well, Bub, that was an interesting situation. You see, the criminal law punished every one caught stealing a dead body, but the educational law required that every candidate for a medical diploma should possess a practical knowledge of anatomy."

Young Murphy shook his head and laughed with his preceptor. "Then you had to break the law to become a doctor?"

"That's the way it was. Foolish, wasn't it? But there was another peculiar thing. If you were caught stealing a body

the crime was a misdemeanour; but if you took as much as a square inch of the corpse's clothes it was a felony. Naturally, the grave-clothes were left behind unless the body-snatchers were in a hurry or became a bit careless. I remember very well what happened to Ben Crouch. He was a pock-marked, powerful ruffian with a weakness for flashy clothes and jewellery, and was the leader of the London gang. Ben attended two funerals one day and then exhumed the bodies at nightfall. He was caught and sentenced to one month's imprisonment. After he had served that sentence he was tried for the theft of a stocking which had clung to one of the dead women's legs. For that Ben got seven years!"

But talking could not continue indefinitely: there was work to be done; and as the old man sat in his big black upholstered chair writing in his journal, his old briar wheezing away, the lad thumbed through his books and dipped for the first time into the crucible of medicine.

"The term 'human anatomy' comprises a consideration of the various structures which make up the human body," he began.

"Run along now, Bub, and hitch up old Jess. We've got to go out and see that Vaughan boy. How's your smeller?"

"My smeller, sir? Why, it's all right, I guess. Anyway, I haven't got a cold."

"Good. Get it in tune, 'cause I want to see if you can smell the diagnosis when we get there. Make haste, now."

And as J.B. moved to obey the old doctor, with a chuckle, called him back. "Almost forgot your first lesson. Better learn the names of all the bones in the hand and where the muscles are attached. That ought to keep you busy for a while."

CHAPTER IV

J.B. SPENT a little more than a year taking care of old Jess and the doctor's faster team and keeping the office clean. Before he came it had been finger-deep in dust. He memorized his books so that he could recite to Reilly's satisfaction. He slept little, played not at all, worked seven days a week, accompanied his preceptor on all calls, learned the correct way to enter the sickroom with neither a too exuberant nor a too melancholy air; learned the value of the 'bedside manner'; learned the value of observing the patient, relatives, and home; learned to wrap a bandage, to pull a tooth from a recalcitrant child. He learned the value of a pill and a kind word when the trouble was in the mind rather than the abdomen; learned many things that would never be written in books. All the time his interest in medicine grew; all the time he found himself falling more and more in love with the profession, less and less able to turn away from it. His work stimulated his imagination and filled his mind with ideas. When he was alone he found the fascination of dissection, using dead birds and rabbits and squirrels—everything he could get his hands on. He learned by careful study of their organs and by comparing them with what he read in his anatomy book.

"He's a born doctor," Reilly told his mother.

It was well. She had faith, but even those with faith need some corroboration. Soon she would be asked to part with some of that money she had saved from the bounty for dead wolves, from the eggs she had sold. She needed that corroboration.

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That time came when old Dr Reilly said, "Well, Bub, I reckon I've taught you all I can. It's time for you to go to a medical school."

"Do you really think I'm ready, sir?"

"Ready's you'll ever be. There're two medical schools in Chicago—Rush and Chicago. From all I hear they're as good as the best. I think you'd better go to one of them; you'll be here in your own country." He hit the spittoon. "Don't think you'd do so well with those easterners in New York or Philadelphia. It's my notion they've got more pride than sense."

J.B. sat down at once and wrote to the secretaries of the two schools. That was in July 1878. The boy was growing older; his twenty-first birthday would come in December. It was hot. A number of deaths in that part of the country were due, every one said, to the heat. There were two deaths in Outagamie County in one day. Everybody said crops would be poor because of lack of rain. Money was getting tight. People were looking ahead to a winter of hard times.

"How much is it going to cost?" his mother wanted to know when he told her what Dr Reilly had said.

"I've written to two schools," the boy said. "Whichever is the cheapest . . ."

When the pamphlets came he learned that the requirements were practically the same. Students must be twenty-one years of age, of good moral character, and, for entrance to Rush, with such a primary education as was "clearly requisite for proper standing with the public and the profession." Chicago Medical College more specifically stipulated that this latter requirement be met by the presentation of a diploma from a high school or college. Rush Medical College italicized the following:

On and after March 1, 1883, applicants will be examined in the elements of physical science as taught in the common school text-

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books, and in arithmetic to cube root. Importance will be attached to handwriting, spelling, and knowledge of grammar. Graduates of high schools will be exempt from this examination.

The course for a degree in medicine extended over three years, the pamphlets stated, and the student must attend two full courses of lectures, dissect each region of the body, and take one course in chemistry, including urinalysis. The advantages for clinical study were set forth in glowing terms by each college, but J.B. noticed that Chicago Medical had the course of study divided definitely into a time schedule. With some pride the announcement began,

This College adopted at its organization a graded course of instruction, and was the first in this country to classify its pupils according to time and progress in study, as is habitually done in literary and other scientific institutions.

That sounded sensible to the boy, and, anyway, the tuition fee at Chicago was fifteen dollars less than at Rush. He decided he would go to Chicago. But Dr Reilly read the pamphlets too, and when J.B. told him of his decision the doctor said, "Well, now, I'd think about that. The cheapest isn't always the best to buy. This is an important step you're about to take; maybe you oughtn't to let fifteen dollars tip the scales. Now I see here that Rush has been teaching medical students for thirty-five years, while Chicago is just an upstart—only twenty years old. From all I can gather Chicago has a lot of newfangled ideas they haven't worked out yet. Then there's the Cook County Hospital right across the street from Rush; there's your chance to see patients, son."

II

The first charter for a medical college in Illinois was granted to Rush in 1837, when Chicago was an unincor-

porated town of 3000. At that time the town lay partly in and partly on a marsh; its citizens walked on precarious wooden sidewalks raised above the mud on stilts. Several were the signs warning NO BOTTOM. In 1843, when Rush finally was opened, the population of the town had jumped to 7000, and it is not difficult to understand the good faith which prompted the school's first announcement: "The superior facilities for medical instruction presented by Chicago cannot be denied."

Rush was founded through the energies of five men, Daniel Brainerd, Josiah Cosmare Goodhue, James N. Blaney, M. L. Knapp, John McLean; and its first home consisted of two rented rooms and an adjoining shed. At its opening there were twenty-two students whose fees, if paid in full, which is extremely doubtful, amounted to 1430 dollars—the school's entire income. One man graduated from this class, and he paid the sum of twenty dollars for the honour. In 1844, one year after it was opened, two real-estate promoters, thinking to enhance their holdings, gave the college a plot of ground and helped to erect a building which cost 3500 dollars—a great improvement over the original quarters. The following year forty-six students enrolled in the college and the graduating class numbered eleven. In its thirteenth year—1855—at its own expense the faculty enlarged the building at a cost of 15,000 dollars and claimed accommodation for 250 students. Thus by leaps and bounds the school grew strong—the only institution of its kind in that part of the country until 1858.

Then, under the strong leadership of Nathan Smith Davis, the Chicago Medical College was founded. Davis had been brought to Rush from the East as Professor of Physiology and Pathology. From the beginning of his appointment he had continually urged adoption of a more thorough and efficient system of medical education, but Daniel Brainerd and a majority of the faculty and trustees at Rush were satisfied

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with the way things were going and refused to make any changes. Since their income came from the fees of students alone Brainerd and his colleagues feared to raise the requirements for entrance or graduation, because such standards would exclude a large number of students who would then go to schools more lax in these particulars. This difference of opinion between Davis on the one hand and Brainerd and his followers on the other resulted in the organization of the Chicago Medical College, which became the first school of medicine in the United States with a graded curriculum.

By 1878, then, both schools were firmly entrenched in the American medical battleground. However, even as late as 1876, two years before J.B. was to come to Rush, it was possible to graduate from one of the best medical schools in the country after attending two identical courses of lectures without having looked through a microscope, without having seen a case of labour, utterly devoid of practical training in physical diagnosis, without ever having taken a medical history, and without the slightest bedside instruction. In those facts some idea of the snail-like progress of medical education may be conveyed.

III

Though she was busy with the innumerable household duties which had lined her face and gnarled her hands, his mother was not too busy to listen when J.B. rushed in with the pamphlets. With a deep sigh she sat down on one of the cane-back chairs in the kitchen and wiped her hands on her apron. He began reading to her from one of them.

She endured the formal sentences, mortared with words she did not understand, for some time. Then she said, "Ye've not told me how much it's going to cost."

"The fee for one year's study is sixty-five dollars."

"And are they both the same, then?"

Reluctantly he told her that Chicago Medical was fifteen dollars less.

"Which'll ye be going to?"

"I wanted to ask your advice."

"Which does Dr Reilly favour?"

"Well, he likes Rush, but it's the dear one."

The schooling that the good Sisters in Ireland had given Ann might have been brief, but God had endowed her with a fine mind and with the ability to think beyond her own experience. She had planned for her children's education, and that their schooling should take them away from her was something she took for granted. Her youngest was to be a doctor, and Ann was not one to accept second best for her little brood. If the expensive medical school in Chicago was the thing that would make a good doctor of the lad there was nothing to argue about—it was settled.

With characteristic directness Ann turned to practical matters. When told that room and board with a private family could be had for six and a half dollars a week, but that if several boys lived together they might save themselves a good part of that, she advised that her son find a place with an Irish family where he would be certain of a little mothering and good wholesome food. Next, he was to find a church and make himself acquainted with the priest. To these things J.B. gave a ready and sincere promise. Then Ann went into the things that lay beyond the routine of living. She wanted her boy to promise to waste no time on women. Some time he would marry, and the girl he chose would have to be fine enough to measure up to the rest of the things he planned for his future.

With a mother's natural jealousy of the girl who at some dim future day would take her favourite son from her, Ann dwelt with fierce tenderness on the virtues that this unknown young person must possess. Then, with a swift return to her

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humorous, common-sense attitude towards life, she said that there was no reason why her Johnny should go looking for a bride among the poor. Rich girls, she said, could be as virtuous as their poverty-stricken sisters and many times more useful to a young man with his own way to make in the world.

He caught her by the hands and pulled her to her feet, hugging her close to him. "I'll be having no girls, Mother—not until I can afford them. And I'll never have one as nice as you."

She pulled away and wiped her eyes with the apron. "And when will you be going, then, son?"

"Lectures begin the first day of October, but I should go down next week to find my room and board."

"Praise be," his mother said, pulling herself together. "I'd better start getting your clothes ready then. Get along with ye now. You can see I've work to do."

IV

Thus, on the advice of his preceptor, based on prestige rather than principle, J. B. Murphy sent in his registration to Rush Medical College. On September 28 Dr Reilly drove his fast team out to the farm to pick up the grim-faced youth and his big, oblong canvas bag, in which his mother had hidden some cookies, apples, and preserved fruits. Excitement, tears, confusion, made the parting difficult. His mother, strong woman that she was, could not see her last-born leave her hearth to go out into the world without a demonstration of her love for him. Advice rolled off her lips in torrents. Simple, homely advice which she repeated time and again—warning him against the dangers of alcohol, bad women, and idleness. His father, unable to endure all the emotion, said good-bye to his son in so many words and went off to the fields. His parting words were, "See that you're a credit to your mother."

J.B. himself was nothing but a hundred and forty pounds of intense eagerness. Not only was he about to set out upon a journey to the end of Time, not only was he about to enter a community quite foreign to him, to begin a career which would carry him to world renown, he was going to have his first ride on a railway train.

Finally, after it seemed entirely too much to expect, he was given his last tearful kiss, and he and the doctor drove away. Little was said on the way to Appleton. After the silent ride, when at last they reached the station, the old doctor put his hand on the boy's knee and said, "Good-bye, son. You've got it in you to be a good doctor, and already I'm proud I'm your preceptor. Keep everlastingly at it, and remember that to succeed you must know some things better than your competitor."

It was an all-day trip to Chicago. Excitement, together with a desire to appear affluent and worldly, prompted J.B. to buy an apple and to top it off with a cigar. He used to tell of it in later years, and laughingly say that the cigar made him sick and the apple kept him from dying. That was his last experience with tobacco, partly because such luxuries were beyond his purse, partly because he thought the habit unhealthy.

He arrived in Chicago too late that evening to go out to the college and so took a room near the station for the night. Early next morning he set out with his bag on the long walk to the West Side. The imposing red brick building was all he had pictured from reading the catalogue; its description had not been exaggerated in any detail. There he was to spend two years. He walked up the stone steps as if they were enchanted, somewhat as if he were entering the dragon's castle to rescue the fairy princess; but still with trepidation and doubt. The registrar received him with an appraising glance. J.B. inquired as to the availability of rooms in the

neighbourhood and was told to seek out the janitor of the college. That important personage, it seemed, was the possessor of a list of boarding-houses—a 'want-ad.' section all in himself. The boy found McDonald, an immigrant Scotsman with a kind red face, just where the registrar said he would—in the basement. McDonald looked at the sandy-haired youth with a quizzical expression on his face and a twinkle in his eye. "Your blue eyes," he said, with an accent as thick as tweed, "are either Scotch or Irish. Now which is it?"

"My name's Murphy."

"Sez I, that's a guid name from the sooth o' Ireland, and I'm glad to make your acquaintance. Where d'ye hail from?" J.B. told him. "An' ye've come doon here tae become a doctor?" McDonald chuckled. "I expect you'll be takin' over Professor Gunn's clinic afore long."

"I was told you could direct me to a place to live."

"That I can, laddie. I'll be sending ye to a guid Scots-woman, a friend of mine. A young doctor like yourself should have a guid home and guid food, sez I."

He gave the boy an address, and there J.B. went, lugging his bag, to find a middle-aged woman with a kind smile and a cheerful word. She made him feel at home immediately and settled him in a room on the second story. When finally she left him alone, after telling him the hours for meals, the boy stood before the warped mirror and took stock of his distorted features. He agreed with Dr Reilly that his face was so youthful it would help little in impressing his teachers. Even in two or three years, when he would be going into practice, patients would distrust him for his youthful appearance. Already he had learned that patients liked ambrosial locks, flowing whiskers, and a rolling eye better than they did cold facts. Despite the fact that they were unsanitary, almost every doctor of that day was distinguishable by at least a

vandyke beard. To impress their patients doctors found it necessary to hang an air of mystery over their work. Beards aided in this deception; they were a sort of trade-mark; they lent dignity and weight to an otherwise ordinary face.

J.B. had not dared to grow a beard in Appleton for fear he would be laughed out of the county. But now, here in Chicago, well on his way to becoming a physician and surgeon, he looked into the uneven mirror and decided never to shave again.

v

A few minutes before nine o'clock, on October 1, 1878, J. B. Murphy entered the amphitheatre of the college to hear his first lecture on surgery. Although his ticket called for a numbered seat in the steeply slanted, narrow wooden benches, the boy soon learned, along with the other freshmen, that it required a bold assertion of rights as well as a demonstration of belligerence to get it and hold it. The order was, first come get the best benches, which were nearest the front; and if your ticket called for one already occupied you had to take possession by might. The result was that coat-tails were flying through the air in wild confusion, and many a pair of trousers was ripped as early arrivals were bodily tossed back by all hands to the seats assigned them. These rough-house tactics were a daily ceremony, which automatically and absolutely quieted down as soon as the professor appeared.

On this, his first morning, the silence was immediate and painful as Professor Moses Gunn, nicknamed "Minute Gunn" by the students, entered the lecture-hall. Gunn was theatrical. Tall, erect, his long hair wrought into ample ringlets which hung immaculate about his neck, he wore bushy side-whiskers and a moustache, and his gold-rimmed pince-nez were attached to an ear by a gold chain. He was celebrated among his contemporaries for his striking, if not

always tasteful, costumes. Markedly fastidious, vain even, he cut quite a figure in his favourite sport—horseback riding. But for all his showiness Gunn was thoroughly equipped as a surgeon. He was quick and accurate in diagnosis and a rapid and artistic operator. Like all his surgical colleagues, he had been educated in the day when surgeons were pitted against each other like runners in a race. He was treasurer of the college, and as such welcomed the students to “two full years of lectures, which, if conscientiously attended, will result in the attainment of a medical education second to none in this country.” He went on to announce that, “Until a year ago the only clinical patients available to you as students were those requiring my services as a surgeon. Now, I am happy to say, clinics in the Principles and Practice of Medicine and Nervous and Mental Diseases are at your disposal.”

After this introduction Gunn began his first lecture—on the value of ether as an anæsthetic.

“Gentlemen, on October 16, 1846, in the surgical amphitheatre of the Massachusetts General Hospital in Boston, and before crowded benches, Dr John Collins Warren, Professor of Surgery at Harvard Medical School, operated upon a man anæsthetized with ether by a dentist named Morton. The latter, enthusiastic over his discovery that a human being could be put to sleep by the inhalation of ether, had promptly told his story to Dr Warren. After considerable hesitation Warren agreed to aid Morton with his human experiment, as he said, ‘on account of the great blessing it would be to the human race if we were possessed of a method of alleviating the pain of a surgical operation.’ When Warren had removed a growth from the neck of his patient without the man feeling more than a scratch he turned to those on the benches and said, ‘Gentlemen, this is no humbug!’ ”

It seemed to young Murphy that never had a man spoken so well, so correctly and to the point. The dramatic way in

which Gunn was beginning his lecture thrilled the prospective doctor more than anything he had ever heard. Schmidt, his hero, was receding into the adolescent past.

Gunn continued: "Soon after Robert Liston amputated a thigh under ether anæsthesia; my old teacher, Syme, of Edinburgh, began to use it in 1847, and thus the method spread from Boston to all parts of the world. The discovery of chloroform soon followed. The effect of these scientific contributions upon surgery cannot be overemphasized. But, gentlemen, I must remind you that in certain quarters it has been difficult to overcome old habits and forgo the rapid, slap-bang methods which were necessary when the patient was in agony. It must be realized that now, thank God, painstaking dissections are possible."

The professor went on with his lecture without knowing that he was making himself an idol. J.B. turned to the fellow next to him. "He's magnificent. He must be a great surgeon!"

His neighbour was bored. "Heard the same lecture last year," he said. "Still, the old boy's good at it."

"Oh," J.B. said enthusiastically, "I think he's wonderful!"

"Wait till you hear him use his pet expression: 'If you're to be a success in surgery you must be a minute gun.'"

That week, besides Gunn's lecture, J.B. heard lectures by J. Adams Allen, Professor of the Principles and Practice of Medicine; De Laskie Miller, in Obstetrics and the Diseases of Children; Joseph P. Ross, Professor of Diseases of the Chest; W. H. Byford, in Gynæcology; Edward L. Holmes, Professor of Diseases of the Eye and Ear; H. M. Lyman, Professor of Physiology and Diseases of the Nervous System; Jas. H. Etheridge, in Materia Medica; Charles T. Parkes, who presided over the anatomical dissecting room; Walter S. Haines, in Chemistry; Hyde, in Skin and Venereal Diseases; and Owens, Professor of Orthopædic Surgery. The climax of

this thrilling week came when he attended Professor Gunn's surgical clinic. There he saw "the blood flow."

The boy's letters home were filled with the things he was learning. They must have been fascinating, but quite unintelligible to his mother. An instance:

Next to Dr Gunn comes Dr Allen. He is very witty and uses stories to illustrate his points. He teaches us to ask: What is really the matter? What is back of the name of the disease? What is the real deviation from the physiological condition which is called disease? In other words, what is the internal disease that produces the external presentations called symptoms?

Thus he was learning again what Dr Reilly had tried to impress upon him. Professor Allen was bringing it out.

Allen, having been Professor of Physiology and Pathology in the University of Michigan, succeeded Daniel Brainerd as President of Rush. One of his first acts had been to bring Walter S. Haines to the faculty to teach chemistry and toxicology. In the beginning the course was taught without laboratory work, and Murphy's class was the first to make a chemical analysis of urine. In his teaching Haines reminded J.B. of his old friend Schmidt, likewise a teacher of chemistry. Haines was precise as to detail, simple but forceful in his demonstrations, and exacting of the student in return. Unlike Allen, he apparently had no marked sense of humour, and yet his personality was not unattractive. J.B., because of his interest in chemistry and because of Haines's similarity to Schmidt, was drawn to the brilliant chemistry professor, and it was not long before he was spending much of his free time in Haines's laboratory. In fact, it is recorded that this subject interested him so much he carried it home with him; in his small room he practised teaching chemistry, *à la* Haines, in a direct question-and-answer method which was so dramatic that his landlady became somewhat apprehensive of her new

boarder's sanity. But, encouraged by his non-committal replies, she eventually concluded that the young man talked in his sleep and reflected that he probably would outgrow it as had one of her own sons so afflicted.

Was he thinking of teaching again? Indeed he was. Show young Murphy a man in the spotlight, and he would endeavour to emulate him. Thrown into the arena with those several brilliant men, all capable teachers, he aspired to be like them. Here was a youth who had no idea of hiding his light under a bushel.

CHAPTER V

J.B.'s SUDDEN aspiration to become a surgeon was induced by Dr Gunn of the gaudy clothes. If he were going to teach like Haines he was going to operate like Gunn. Both jobs, dramatic and spectacular, appealed to him. What, he asked himself, was so impressive as a surgeon doing a difficult operation before a large gallery of students?

He had not been in the college more than a month before he was impatient with the slowness with which scientific facts and their application to the practice of medicine and surgery were accepted. His curiosity was insatiable. He read everything he could get his hands on. At every lecture he engaged the professor in a discussion. There was nothing in him which shrank from being the centre of attention. He would stand up in class and argue a point with a professor, his shrill voice, full of the excitement of argument, disclosing his highly emotional nature as well as his youth. Few if any of his fellow-students understood this fierce thirst for knowledge, this hunger for practical experience. To them young Murphy was a show-off who centred the eyes of the teachers upon himself, and who, by his endless questions, prolonged their lecture hours. J.B. was not popular, but that fact did not seem to restrain him; he persisted in questioning certain accepted deductions and would follow his professor down the halls to get answers to his questions.

What did he learn? He learned that it was not until fifty years after the discovery of America by Columbus that Vesalius, a Belgian, laid the foundation for modern anatomy by the publication of his work on the structure of the human

body. He learned that seventy years elapsed before Ambroise Paré produced his magnificent volume which marked the birth of the art of modern surgery. He learned that one hundred and twenty-five years elapsed before Harvey opened the way to a knowledge of physiology by his demonstration of the circulation of the blood. And the boy thought how slow! Can't something be done to speed the progress of medicine and surgery? Youth with new ideas was needed. Old fogies ever were the bane of progress. In his mind he elected himself a body of one to lead the medical and surgical world out of the bogs of superstition and ignorance.

What did he learn? He learned that Johannes Müller and his pupils had made Germany the centre of biological research. That stirred his easily disturbed envy. He would win these laurels for the United States. So he delved into biology, raced through everything he could find, only to become impatient. That kind of work was not dramatic enough, was too indefinite. He learned about Helmholtz; of how, with his invention of the ophthalmoscope, he had opened up new fields of investigation in medicine. Henle's writings pleased the boy because he laughed out of existence medical devils and established rational conceptions of disease; because he contributed such epigrams as "a hypothesis which becomes dispossessed by new facts dies an honourable death; and if it has already called up for examination those truths by which it was annihilated it deserves a monument of gratitude." He learned of Du Bois-Reymond, who created modern electro-physiology; of Schwann, who struck a damaging blow against the theory of spontaneous generation by defending his theory that all living things arise from a cell and consist of cells; of Reichert, who brought this same theory into embryology; and of Virchow, who applied the cell doctrine to disease and gave to biology the conception of germinal continuity, which is the foundation for the study of heredity.

The success of these men, all great, all acclaimed, whetted young Murphy's desire for fame. He too would discover some principle, some truth which would place his name beside these medical saints. Then he came to Pasteur. The very year J.B. was born, he learned, Louis Pasteur had sent his paper on "Lactic Acid Fermentation" to the Lille Scientific Society. In that paper Pasteur expressed his conviction that in the world of the "infinitely small" lay buried the causes of contagious diseases. While his opponents denied that germs bore any relationship to infections entire herds of cattle and sheep were dying from anthrax. Pasteur announced he could vaccinate the animals against the disease, and then proceeded to prove this bold, almost unbelievable, prediction. When his experiments upon rabies and his treatment of patients with hydrophobia proved to be successful, the scientists of all nations made a path to the Frenchman's door. But even then, in 1878, some were not convinced. In the classrooms and lecture-halls of Rush that year the most controversial topic was antiseptic surgery. Murphy became interested at once. Here was a subject concerning surgery which was developing in his own lifetime.

His reading brought him to the romantic and dramatic story of a young surgeon in Glasgow, Joseph Lister. Lister, thinking of the possible application of Pasteur's experiments to surgical wounds, reasoned that just as germs which caused fermentation got into the sugar solution from the air, so it was from the air that germs came which caused the suppuration of wounds. J.B. came across Lister's original paper in the medical college's small library. He read:

Turning now to the question of how the atmosphere produces decomposition of organic substances, we find that a flood of light has been thrown upon this most important subject by the philosophic researches of M. Pasteur, who has demonstrated by thoroughly convincing evidence that it is not to its oxygen or

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to any of its gaseous constituents that the air owes this property, but to minute particles suspended in it, which are the germs of various low forms of life, long since revealed by the microscope, and regarded as merely accidental concomitants of putrescence, but now shown by Pasteur to be its essential cause, resolving the complex organic compounds into substances of simpler chemical constitution, just as the yeast-plant converts sugar into alcohol and carbonic acid.

Lister had seen patients with compound fractures of the bones, in which the skin had been broken through, develop fever, become delirious. He had seen stinking pus generate in the wound. He had seen erysipelas and abscesses develop in the thigh and arm, and in over one-half of the cases the patients had died. Yet, on the contrary, simple fractures of the bones were not followed by death, so he had reasoned that some other factor was involved. He had discussed this question of the healing of wounds with his surgical colleagues, all of whom had indulgently remarked that "laudable pus" was necessary in the process of healing. Yet Hippocrates had said that some wounds healed by "first intention"—that is, without suppuration. Lister found help in his problem, not from his famous surgeon father-in-law, James Syme, or from his surgical colleagues, but from the Professor of Chemistry at Glasgow, Thomas Anderson, who suggested a relationship between Pasteur's work and the problem of surgical infection. Unable to understand the chemical facts involved Lister went to Anderson and came away with several rich ideas. He reasoned that air got into compound fractures and amputation wounds. The abdomen, chest, and brain cavities could not be entered with impunity by the surgeon because of this danger of suppuration. The question then became: Why did air cause trouble in some wounds and not in others? The hint as to how to proceed came from, of all places, the sewerage system in Glasgow, where carbolic acid was used to prevent

stench. So Lister painted carbolic acid solution on the next patient with a compound fracture, and he also had the nursing sister boil the cleanest towel in the hospital for the dressing. The patient got well just as did his cases of simple fracture, without suppuration. His success in this instance swept him on to other precautions. Contrary to the custom of his colleagues, he washed his hands before as well as after an operation; he wore a clean linen apron during an operation in place of a dirty old street coat, stained with dried blood and pus, which had been his habit; he devised a method of boiling the ligatures he used instead of having his thread and needle stuck in the lapel of his coat; he caused the air about his field of operation to be sprayed continuously with a solution of carbolic acid, and the dressings he applied were composed of many layers of gauze and mackintosh. The result was that hospital gangrene practically disappeared from his ward in the Glasgow Infirmary.

Could Murphy withstand such a story? By no means. If there were any doubts in his mind about antiseptic surgery, by the time he finished hearing the story of Lister's discovery he was a devout champion of it. As is always the case with a pioneer in any field of surgery—and herein surgery is its own enemy—Lister's results were not believed, and their author was subjected to acrimonious criticism by his English surgical brethren. His address "On the Antiseptic Principles of the Practice of Surgery," in 1867, was received with hoots of derision and anger. Some of his listeners winked, others thought him a plain liar, and few withheld judgment until experience gave them authority to verify or contradict him. Lawson Tait was one of the very few who accepted part of Lister's technique; that of cleanliness for himself, nurses, assistants, sponges, and instruments, but rejected the carbolic acid spray. Soon he was able to write that the good results obtained were due more to cleanliness than to the exclusion

of air. Although Lister's work was received very coldly by his British colleagues, German and French surgeons, Murphy learned, came reverently to his clinic to learn and study. Many New York surgeons adopted his methods, but Gross, of Philadelphia, after lecturing to his students for a few weeks on antiseptic surgery, finally announced he had done so at the request of the trustees, but that he thought it was worthless. Several of young Murphy's teachers, leaders of surgery in Chicago, were opposed to the newfangled theory and openly ridiculed it.

J.B., remembering Schmidt's teaching of logic, kept an open mind as long as he could, tried to respect equally the opinions of the opposing sides. But soon he was arguing with his fellow-students on the side that any discovery which would decrease the existing surgical mortality rate deserved exhaustive trial. Had he not witnessed six abdominal operations which had resulted in as many deaths? It was the vogue then for a surgeon to take pride in amputating a leg without soiling his cuffs. One prominent surgeon in Boston always entered the operating room with a final glance in the mirror at his perfectly tailored dark blue Prince Albert and the rose in his buttonhole. Leaders in the profession believed that to accept Lister's methods and don white gowns would make them lose their individuality. Young Murphy is remembered by his fellow-students as always being in the thick of all arguments in his college days, with especial emphasis on arguments having to do with antiseptic surgery. He had little patience with those who opposed him, whether they were professors or students. He was impatient for the school to adopt Lister's methods and to recommend them to hospitals throughout the country. "But it won't hurt to try them!" he kept crying at his opponents and scoffers. He learned later from personal experience that new ideas in surgery are accepted slowly and with caution, and often it is a blessing to the patient that it is so.

During one argument, which took place in the amphitheatre prior to the appearance of the professor, J.B., becoming angry at one of his classmates not in the argument but who persisted in making derisive remarks, picked the fellow up and threw him into the pit. J.B.'s sense of humour was not robust, but he was a cheerful sort who went about his work with a smile or whistling *Auld Lang Syne* in the wrong key. If his brilliance had not yet reached the surface it was well on its way. His letters to his mother reflect his long hours of work and study—reflect his impatience, his thirst for knowledge, his zeal, and his ambition. In that, his first year, the youth learned the history of medicine; learned how a scientist should think; learned something of diagnosis and of its importance; got some ideas of his own.

II

At the end of his second year of lectures J.B. took the examination for an internship¹ at the Cook County Hospital. Only students of Rush and Chicago Medical were eligible for the coveted places on the staff of the large charity hospital. Service as an intern was not required of a graduate before he could practise, as it is to-day; and those who did not take the examination regarded those who did as "fellows who want to stay in school all their lives." But each year the examination was an important event and was attended by a large audience which included practically the entire senior classes of both institutions. The examinations were oral and the spectators were wont to offer free, and often wrong, advice to the candidates. The result, of course, was a good show.

The method of examining the candidates was very much like an old-time spelling-bee: one by one the candidates were asked a question and their answers graded. As he sat waiting

¹ Intern—i.e., a resident surgeon or physician.

for his first question J.B. hung on to the image of Schmidt counselling him to be calm. If he allowed his anxiety to creep into his speech he knew the resulting high falsetto might ruin his chances. He wanted to be calm, but he also wanted to be decisive and quick in his answers; he must impress his examiners with the fund of his knowledge. Meanwhile his fellow-students were shouting at all who rose to give an answer, nor did they spare him. But time after time he successfully parried all attempts to confuse him, and hung on to his excitement and his temper; answered all the questions as they were put to him with a minimum of words and deliberation. The result was that Professor Gunn, following the examination, congratulated him on having won first place.

Here was his first big victory won in open competition. He could hardly wait to tell his mother the good news. He wrote her the moment he reached his room; told her in glowing terms of his success in obtaining a place in such a fine institution devoted to the care of the sick charity patients of the county. His mother's reply was characteristic. Perhaps it was the word "charity" which upset her.

"So it's a pest-house you're going to for a year?" she wrote. "What is it you can learn about surgery there, I'd like to know? Who is there that's so much better than our own Dr Reilly, please tell me?"

The lad's beard had come along well and now padded his face with a thickness of reddish yellow hair. He was almost twenty-three and felt so much the man that he could smile tolerantly at his mother's attitude. One of his fellow interns, L. L. McArthur, only twenty, had worn side-whiskers to help him through the examination. But when the examination was finished and while the examiners were engaged in selecting the winners McArthur went across the street to a barber's shop and had the whiskers removed. When he returned the examiners called his name and he stepped forward. The

examiner said, "But I didn't examine you!" "I beg your pardon, sir, but you did. I am McArthur, and I know just as much without the whiskers as I did with them."

The hospital which Murphy and the other five interns entered had no equipment except a large amount of medicines and an adequate supply of material for bandages, splints, and sutures. There were no microscopic or clinical laboratories apart from the drug-room. Laboratory diagnosis was unknown, except such procedures as were connected with the chemical examination of urine. Asepsis was unknown. Interns in touch with cases of erysipelas and gangrene, or engaged in post-mortem work, were assumed to have no connexion with obstetrical cases. But there was no stern rule against it, and they thought nothing of maintaining friendly relations with laudable pus. Puerperal infections were frightfully frequent and deadly, and as a result the obstetrical ward was closed on many occasions for weeks at a time. During these intervals the windows were kept wide open day and night, atomizers were kept busy sputtering weak antiseptic vapours into the air, walls and ceilings were freshly white-washed, and all woodwork was scrubbed with antiseptic solutions. Still the old deadly ignorance of personal transmission of infection continued.

In this pre-Listerian period surgery in Chicago and elsewhere in America was distinguished by bold ligations of blood-vessels, amputation of arms and legs, and cutting into the urinary bladder for stones. McDowell in Danville, Kentucky, had but recently recorded his experiences in performing the operation of ovariectomy. The abdominal cavity, though, was far beyond the surgical possibilities of the day. If Nature did not intervene the unfortunate patient with a tumour or inflammation of any of the abdominal viscera was in a hopeless condition. Heaven knows that if Nature did not intervene man would not! But if it comes slowly progress

does come to surgery. With Lister's methods being adopted in spite of die-hards, gangrene, running wounds, and stinking wards were disappearing rapidly. Anæsthetics too added greatly to the advances made in surgery. Whereas surgeons had had to rush through an operation at lightning speed and under great disadvantages, they were now able to take their time. The days of sleight-of-hand feats were over, and the prestidigitations which had made many surgeons famous were giving way to careful, deliberate procedures.

III

The Cook County Hospital's capacity was 450 patients. There were six interns in surgery on two shifts. J.B.'s introduction to his work as a junior intern was direct and to the point.

"Here," his senior said, "take your dressing-tray and take care of that leg amputation in Ward Five."

The tray was a wooden box with a handle. Each box had five sections: the largest contained a supply of coarse gauze; a smaller contained absorbent cotton; a long pair of forceps and two or three metal probes were in the third; and the remaining two compartments each held a wide-mouthed quart bottle. One of these bottles contained a $2\frac{1}{2}$ per cent. carbolic acid solution in thick oil, and the other a $\frac{1}{2}$ per cent. carbolic acid solution in water with a large, hard black rubber syringe.

In later years Murphy commented on how he must have resembled a vulture seeking prey as he went from ward to ward. A murmur of horror often rose from the patients when he appeared in the doorway with his box to disturb their dressings. One of J.B.'s surgical colleagues of later years, a man who went through the same bitter experiences, has vividly expressed his own agonizing remembrances of dressing wounds:

Whenever I smell carbolic acid I visualize a frail, emaciated boy with large, appealing eyes; his leg had been amputated, his thigh was honeycombed with cavities from which stinking pus poured forth, his resistance was at the lowest ebb and his unearthly moans were heartbreaking as I painstakingly treated his wounds twice a day in an effort to heal them. Even now I sometimes awaken in the night and hear those wails of protest.

In the operating-room it was Murphy's duty to spray the surgical field with the 5 per cent. carbolic acid solution during the operation. And then, according to Lister's latest advice, he dressed the wound with eight successive layers of gauze soaked in the antiseptic solution, followed by a piece of mackintosh and a ninth layer of gauze. One of J.B.'s fellow-interns wistfully remarked, many years later, that none of them ever learned the function of the last piece of gauze.

After his first afternoon in the operating-room, J.B.'s senior intern instructed him in some of his other duties: "Remember, Murphy, you're to get all the night calls, and don't waken me unless it's absolutely necessary—I need my rest. And—oh, yes—be on hand at the front door at seven-thirty in the morning to meet Dr Lee. He always comes in before breakfast at an ungodly hour. Good luck and good night."

The junior interns, you may be sure, had little sleep. They were always tired. McArthur and Meacher, another intern, shared the same room. One evening Murphy came into their room very fatigued and lay down to rest. He fell asleep, and Meacher and McArthur, hungry for a laugh, gave him a few whiffs of chloroform and proceeded to bundle him into a strait-jacket. When he wakened he was furious, and the two soon released him, frightened at his fury.

J.B. was at the front door at seven-thirty when Edward W. Lee, punctual as the pole star, came striding up the steps. A large, virile man, he thanked the intern for opening the

door. "Good morning," he said pleasantly. "You must be Murphy, the new junior intern."

"Yes, sir."

"Glad to have you with us," the doctor said, and proceeded down the hall. From that moment Murphy was Lee's slave. He even went so far, in his hero-worship, as to part his whiskers in the middle as did Lee, and to copy the doctor's mannerisms in gait, gesture, and speech.

Lee, fortunately for Murphy, was an Irishman, born in County Wexford. He had attended the University of Dublin, where, at the age of nineteen, he finished the medical course in three years, but had to wait until he was twenty-one before he could obtain his diploma. Before he came to Chicago he made several voyages on an Atlantic steamship as ship's surgeon. Like Reilly, he was a kind and generous man, and possessed a keen sense of obligation to his patient's welfare; he had a profound respect for the other's rights and a wholesome love for the country which had adopted him. His individuality, integrity, and ideals greatly influenced the impressionable Murphy, and he managed to be on hand whenever Lee was in the hospital. He would spray for him if he were operating or follow him in his rounds; and it was Lee's approach to a patient, his method of diagnosis, his surgical technique, which J.B. began to adopt for his own. Once when they were making rounds Lee described his attempts to hasten the recovery of a patient who suffered from serious burns.

"You see," the doctor said to the intern, "this boy has lost a large percentage of his total skin area."

"Yes, sir."

"If we could graft skin on those denuded surfaces we could hasten recovery and prevent the serious deforming scars which will result when this new tissue contracts."

"But there's not enough skin left to cover these areas, sir."

"We can get it from something else."

"Yes, sir—but where?" said J.B. excitedly.

"We might try chickens or lambs."

Surgery, which knows so much of this problem to-day, knows how hopeless it was from the beginning; but the idea, far-fetched as it may sound now, was instrumental in bringing together in a common work this older man and the young enthusiast—an association which would continue for several years to the youth's advantage.

Lee was one of those rare men who realized his own limitations. Admiring the young man's ability, he kept firing Murphy with the desire and zeal for experimental research, and in doing this was generous in pointing out other doctors who might teach him. Bacteriology was a new field in medicine, and the microscope held mysteries which fascinated every scientist. Lee advised Murphy to seek out Christian Fenger and to make his acquaintance; told him to attend Fenger's post-mortem demonstrations. "Fenger's skill in performing an autopsy," he told J.B., "is unsurpassed. But what is more important is that he never fails to present practical conclusions of far-reaching import in a clear, concise manner. He's an expert in the use of the microscope and is well versed in bacteriology. Get to know him."

J.B. lost no time in following Lee's advice. He learned that Fenger had come to the United States in 1877 from Cairo, where he had been practising medicine. A Dane, he had been an assistant surgeon in the Schleswig-Holstein campaign, and had continued his studies after the war, passing his examination in 1867, with honours; he had been an intern in the Royal Frederick Hospital in 1869, and research work done there had earned him a grant from the Danish Government; he had become a surgeon in the Franco-Prussian war, after which he studied pathological anatomy and surgery in Vienna; returning to Denmark, he became pathologist to

the Commune-hospital, where he wrote his thesis on cancer of the stomach for the degree of Doctor of Medicine, which was granted in 1874, approximately thirteen years after he had begun the study of medicine.

When he reached America Fenger became a member of the faculty of Rush Medical College. By borrowing money he bought a place on the staff of the Cook County Hospital, where he began giving lectures and demonstrations in pathological anatomy. One thousand dollars was the price he paid for a place on the staff of an institution for the care of the county's poor, with no other reward possible than to see, study, and heal disease. Fenger's profound knowledge of pathology was recognized at once by the medical profession of Chicago. As for young Murphy, who became his disciple, he was the first man he had ever encountered who was dominated by his love of science. The zeal and enthusiasm in Fenger would make him forget his home, his family, and even his anæsthetized patient if he fell on an idea. Every Thursday evening Murphy, Billings, and McArthur, together with other interns, would meet with him at his home; the microscopes would be brought out, and section after section of diseased tissue would be examined and discussed. Clinical history sheets were consulted and the symptoms correlated with the microscopic findings; the latest medical literature was read aloud and explained by Fenger, and the evenings would end with a stein of beer and with Fenger, although he spoke English poorly, entertaining them with stories of the clinics in Vienna, Heidelberg, and Berlin.

It is not unreasonable to believe that those young men learned more during one Thursday evening than they did all week at the hospital. That was pleasure—those evenings at Fenger's; they were intensely interesting always, and often they were thrilling. The hospital was work. As a matter of fact, if one weren't curious, if one weren't abnormally alert

and wide-eyed, if one didn't go seeking knowledge, one didn't learn much of anything in the hospital, unless becoming accustomed to suffering was acquiring knowledge. One got used to suffering and used to little sleep; got used to being on one's feet all day. Whatever romances those interns had were with nurses, and of these there were precious few. Quite often recuperating patients acted as nurses. There were no telephones and the hospital had no messenger service, so the emergency surgical and obstetrical work frequently fell on the interns, whether they were equal to the tasks or not.

Towards the end of his year's term in the hospital J.B. began lending an ear to Fenger's ardent praise of European medical schools, laboratories, and hospitals. The pathology professor claimed, and there was no doubt as to the correctness of his assertion, that Germany was far ahead of all other nations, and especially of the New World, in the study of medicine and surgery. In his broken English the doctor would tell in glowing terms of the advantages for study in Germany. "There is where," he often said to them, "you will find pathological material. Every patient who enters the Allgemeine Krankenhaus automatically agrees to a post-mortem examination in the event of death. Think of that! Is that not progress? Is that not civilization? You do not have to wait around half your life to find a body to study; you do not have to buy from, what-you-say—grave-robbers. It is the law!"

In those young men with aspirations Fenger's talk inspired yearning to visit Germany and to study there. It sounded like the scientist's heaven. "It is at the autopsy table, and only at the autopsy table, that you can study the mistakes in diagnosis and the multitudinous vagaries of disease." This was a new era in man's learning about himself. The ensuing years would see miracles performed on the operating-tables of the world.

Germany! What could have been more impossible to a penniless backwoodsman such as J.B. than a trip to Germany to study? His father had worked his way to America, it is true; but Michael Murphy had come to work and to earn his living. For J.B. to so much as dream of spending a year or so in further study, after three years of draining his mother's purse, seemed out of the question. Yet that is exactly what he proposed. He went to Dr Lee full of Fenger's enthusiasm and asked his guidance regarding a post-graduate year abroad. "Don't you think it will be worth my while, no matter how much it costs?" he wanted to know. And, to his great joy, the wise Dr Lee replied, "I don't think you can afford not to go, son." J.B. had never heard sweeter words, unless, perhaps, those which Dr Lee next uttered. "When you come back would you be interested in entering my practice as my assistant at a modest salary, and with the right to build up your own private practice?" Such a generous offer was undreamed of. There was no question about accepting it. Dr Lee also offered to advance part of the money necessary for the trip abroad. How magnificently everything was working out for the twenty-three-year-old doctor!

Elated, hardly able to contain his happiness, he wrote his mother of his fabulous plans. He would require some help from her in the matter of money. "If I go to Germany immediately upon the completion of my internship," he wrote,

I'll return to private practice with Dr Lee fully equipped. If, on the other hand, I begin practice now and go later it will be more difficult to get away. I will be in the rut of practice. I won't be able to leave my patients so easily.

He wanted to go right now, while the romance of the idea was still fresh and alive in his mind. There was his impatience again.

But his mother was cautious. She wrote:

You have paid your own way so far, and I don't want you borrowing. The good doctor is kind enough to give you more money than you'll probably be worth to him. Save some of it and at the end of a year go on your own. If I'm any judge of how fast young doctors get patients you won't be having any trouble getting away. As for ruts, you should know how hard it is to get a team and wagon out of them.

CHAPTER VI

ED W. W. LEE, M.D.

J. B. MURPHY, M.D.

THE freshly painted letters of his name on the office door gave him a thrill of pardonable pride. Each time he passed in and out of the door he couldn't help but look at the sign and roll his name on his tongue. It was a fine office, up one flight in a building at the corner of Halsted and Harrison streets, later destined to be the centre of Chicago's rapidly advancing population.

That was the spring of 1881. Ten years had passed since the great fire which had reduced Chicago to ashes. The population of Chicago was 850,000, and half the people in the town were foreign-born or children of foreign-born parents. Another panic was on the city and nation, and all were stirred as their pay shrank or their jobs disappeared altogether. Agitation of the working class against capital was rising rapidly. But for all the unrest in the air Chicago was completing its first half-century of incorporated life, and the city could look back upon its own rise with incredulity. Covered wagons rolling through the mud had been replaced by hundreds of trains coming and going in a day. The Union Stockyards had come through the fire unharmed, and by 1881 a record mark of 5,000,000 hogs had been reached. In place of the dreary swamps surrounding cabins there were almost 2000 acres in public parks about the city, all of them connected with boulevards. Newspapers railed against "low doggeries" which blotted the downtown streets, but at the

same time they boasted of the 100 per cent. increase in population.

Although at times Murphy's private practice left him wondering if he had been wise to choose the profession of medicine for a life's work, there was plenty for him to do. Dr Lee's reputation was growing with the city, and, as that gentleman could not be in two places at once, he sent his assistant on many calls. There were plenty of patients with typhoid fever to watch for intestinal perforations, and there were innumerable children with throats swollen and black with the thick, sticky membrane of diphtheria to keep from strangling to death. Both Dr Lee and J.B. worked hard, being on call at all hours of the day and night, and there was little time for the younger man to give to study or research. Surgery escaped him too, because whenever there was an operation to be done Dr Lee did it; patients were not quite ready to trust the younger doctor in the operating room. Meanwhile, though, the young man's pleasant personality and cheerful disposition were winning for him many friends and admirers among Dr Lee's patients. There were some even who put as much faith in his treatment of their ills as they did in Dr Lee's. But then the young man's beard fooled some of them; it gave him an indeterminate age, added dignity, gave him something to hide behind on those rare occasions when he was not sure of himself.

In July of 1882 J.B. was called back to Appleton by the death of his father at the age of sixty-four, from heart disease. This was the beginning of a rapid depletion of his family. His mother was left at home alone. Ellen had just married her railway man; Lucinda long since had entered the Convent of St Mary's of the Woods; Daniel, the priest, was teaching in Canada; Michael the younger had gone into the Dakotas to homestead some land of his own; and Frank was in Chicago studying pharmacy.

They buried their father in the old cemetery near Appleton. That gallant Irishman, whose journey was so far and whose sweat had flowed so freely, came to the end of the trail with much of his ambition achieved—with land and family and religion free from entanglements, with what he had made with his own hands and back rising up importantly in the community, with the respect of his neighbours, and at peace with God.

As J.B. was leaving for the train which would take him back to Chicago his mother wanted to know when he expected to go to Europe.

"Soon, I hope, Mother. I'm not quite ready yet."

Ann's sad face lighted with her shrewd, humorous smile. "Is it the money, Johnny? I thought so." From its hiding-place she brought a leather money sack and put it into her boy's hands. "I think you should go now. I'll be all right here, and I won't be needing much." For a moment she clung to him in one of her rare embraces, then fairly pushed him away from her, out of the house and into the one-horse buggy that was waiting to take him to the train.

While her youngest rode away from her, choked and speechless with her understanding and her generosity, Ann Murphy stood alone in front of the house which her Michael had built for her. He was gone, their children had their own places in the world, but around her stretched the broad acres Michael had wrested from the forest. She would carry on, administer the farm wisely and well, for it was the legacy Michael had left her, security for herself and future help for their children, should the need come.

II

By September J.B. was ready to go.

"Your name will be on the door when you come back,"

Lee said to him, and then characteristically proceeded to give him some advice. "Remember this: make contacts, make friends of the young assistants in the clinics. Don't forget they'll be the future professors, the future leading doctors. A wide foreign acquaintance and reputation will make your colleagues here at home regard you with more respect."

If that advice smacks of snobbishness, nevertheless it was good advice. In the highly competitive field of medicine prestige opens more doors than anything else, including ability. Lee knew that; he knew that planting and cultivating prestige was important because with it a doctor could escape many yawning pitfalls. Murphy was one to recognize good advice when he heard it and to profit by it. Many times thereafter Dr Lee's words came to guide him: "make contacts, make friends of the young assistants in the clinics."

His itinerary, his *Wanderjahre*, included Vienna, Heidelberg, and Berlin. Carrying letters of introduction from Dr Fenger to several of the greatest surgeons in Europe, J.B. set out to visit Vienna first. *En route* he visited New York, London, and Paris—cities which presented to his unaccustomed eyes many strange and wonderful sights. The Wisconsin farm-boy was beginning another phase of his education—travel. Under that emery wheel he would acquire a polish. Always a close observer, he realized that a good choice in clothes could be an important asset. Some of the meticulousness which grew to become such a part of him began to show in his handkerchiefs, tiepins, socks, and collars. He even managed to give out an air of sophistication which certainly would have disturbed his mother. He was seasick on the trip across, a weakness which made him very much ashamed, because, he asked himself, "what is so ludicrous as a sick doctor?" In his campaign to make a wide foreign acquaintance he made friends with the ship's doctor and made sure the man remembered his name and where he came from.

Arriving in Vienna, he went directly to the Allgemeine Krankenhaus and walked across the courtyard to Theodor Billroth's clinic. Billroth had gained international recognition but a year before by performing a resection of the stomach for an extensive cancer. By successfully completing this operation he laid the foundations for modern abdominal surgery. The host of critics always on hand to decry such daring departures were hushed by the hard, persistent study the surgeon had made for months preceding the operation; the facts he presented with the bald face of success stopped all but adulatory mouths.

The amphitheatre was empty save for a tall man busy at the blackboard arranging pieces of coloured chalk, making erasures, and evidently preparing the stage for the professor's clinic. On the blackboard J.B. saw in German what he guessed was a list of the cases operated on at the last clinic, with a note of their present condition. Bad as his German was—he had been studying it assiduously for the preceding six months—he made out a chalked invitation to students to accompany the staff on regular ward rounds. J.B. approached the tall man with the slight stoop. "I beg your pardon," he said, stumbling over the words, "I am Dr J. B. Murphy of Chicago." In spite of the fact that he had rehearsed the speech well, he found the going difficult. "I wish to present myself to Professor Billroth. Will you tell me the most convenient time and place to speak to him?"

The tall man had turned slightly to listen, and now he faced Murphy. J.B. saw a face from which hung the inevitable doctor's beard; he saw blue eyes which twinkled merrily as he appraised his questioner. "I'm sure the professor will be happy to see you after he completes his morning schedule," the wide mouth said, and smiled.

"May I wait here?" Murphy asked.

"Most certainly," the man said, and left him.

J.B. seated himself in the first row, thrilled to be in the amphitheatre where the great Billroth worked. Through his mind passed many thoughts; thoughts of the many great surgeons, of the many great scientists, who had passed through the doors he could see; thoughts of home and of Fenger and of where he would live in the beautiful city. Presently several people came in. They were all dressed in white gowns with rubber aprons beneath, and they were all wearing rubbers over their shoes. Rapidly preparations went forward as assistants and nurses made ready for the first operation. Other spectators came and took places in the gallery. After some time the patient was wheeled in, and a hush fell over the amphitheatre as the professor himself appeared. To Murphy's astonishment the tall man he had spoken with was none other than Billroth himself. The sudden vacuum of embarrassment dropped his stomach into his shoes. What had he said? Had he been polite? What a fool he was!

Billroth began addressing the class. Before beginning the operation he explained the cellular pathology of the disease at hand, and then, with a few rapid strokes of his coloured crayons, illustrated the condition he expected to find on opening the abdomen. A number of years before, at the outset of his career, Billroth had been considered a daring operator; but now that he had grown older he had the reputation of being a careful and meticulous surgeon. J.B. noted that he began the operation in a typical manner, lecturing as he went along; but what struck the American was Billroth's equanimity in meeting unforeseen happenings. He worked with a sureness and a calm that were inspiring, and with a delicacy that would have done credit to a jade-carver.

When the operation was finished Murphy approached Billroth somewhat shamefacedly and presented his letters of introduction; made an attempt to apologize for his precociousness.

"Never mind, young man," Billroth brushed his embarrassment away. "You are not the first." Then he looked the younger man up and down. "So you're a pupil of my old friend Fenger? That's fine. I shall be glad to do anything in my power for a student of Fenger's. Make yourself at home, and let me know when you want anything."

It was not long before J.B. was comfortably settled in a *pension* recommended to him by one of Billroth's assistants to whom the great surgeon introduced him, and in a few days, after he had seen the sights of the city, he was thoroughly absorbed in the work of the clinic. He wrote to Fenger and to Lee describing the work Billroth was doing and emphasizing the complete lack of posing and sensationalism in the clinic. He religiously read Billroth's *General Surgical Pathology and Therapeutics*, which was to pass through eight editions during the author's lifetime. As it had been with him at Rush, J.B. was too engrossed to join the post-graduate students who gathered at the popular *café* across the street from the Allgemeine Krankenhaus, although upon occasion he would pause long enough to drink a cup of coffee while he wrote a letter home. He could see nothing to be gained from sitting at a table roaring out sentimental ballads or drinking songs, swilling beer and making love to pretty girls. He could not be bothered with dancing a night away or tramping away a sunny Sunday, eating black bread and cheese and drinking the everlasting beer at country inns. His fellow-students knew him at his work, liked and respected him—at his work. He had no place in their hours of relaxation, their sports, their fun. His life in Vienna, as his life in Chicago had been, was concerned with work and sleep. He was happy pushing a dressing-trolley through the wards, helping Billroth's assistants, making himself useful and pleasant. He would see to it that they remembered John B. Murphy, of Chicago. He tempered his enthusiasm and energy with just the right amount of

diplomacy and restraint to impress his associates favourably, to keep clear of personal unpopularity. He studied German, delighted and impressed his mother by writing German phrases in his letters to her. He was learning much from Billroth, much that would stand him in good stead in years to come.

Given a slight body to start life with, J.B. had put too great a strain upon it. Worn with the years of all work and no play, of living cheaply so that his money might be spent for education and that alone, the slight body now rebelled. He woke one day with a start, the shock coming from the fact that he had passed blood in his urine. Immediately he sought out Billroth's first assistant, with whom he was very friendly. After many examinations and consultations among the professors his ailment was diagnosed as tuberculosis of the right kidney. It seemed reasonable enough, judging by the symptoms and by his family's record. He was strongly advised to return home at once. Discouraged, depressed, with all he had done a wasted jumble, a fanning of the arms, he left Vienna to return home. He was certain that but a few months of life remained to him, nowhere near time enough to do any of the marvellous things he had dreamed of doing.

Only a doctor knows that doctors are fallible. It occurred to J.B. that the professors at the Allgemeine Krankenhaus might be wrong. There was a bare chance. The diagnosis had not been proven. He would stop in Berlin and get another opinion. If the diagnosis were true it meant months, perhaps years, of illness, and eventually death. Had all his years of preparation been in vain?

Low as only a buoyant spirit can be low, he set out for Berlin; and by the time he arrived there the bleeding had ceased. His spirits rose. Hardly able to believe it could be true, he presented himself to Carl Schröder, who occupied the chair of gynæcological surgery at the University of Berlin.

Unlike the practical Billroth, Schröder was an imaginative teacher, one who would lay the groundwork of his lectures in the basic sciences of anatomy and pathology, advancing their clinical application to the particular case in hand, finally summing up in an opinion brilliantly set forth. J.B., who had thought Billroth the last word, now transferred his interest and affection to Schröder. That was the way to teach, he told himself. An intense, sensitive individual, Schröder possessed an inspiring eloquence which was made more dramatic by a deep, resonant voice. Here the impressionable J.B. found something else to envy, for he had not yet mastered his own vocal cords.

Feeling well again, and with no symptoms to cause him worry, J.B. could not bring himself to consult Schröder about himself—and the longer he was without symptoms the more his confidence grew. Thus, with his fears fading fast, he turned back into his career, plunging into the work of Schröder's clinic; nor did he forget, as he worked, to make friends of the professor's assistants. He found Schröder a more personable, a more friendly man than Billroth had been. There is little doubt that Schröder as a surgical teacher made an indelible impression on Murphy. The latter's own pattern of presenting patients to his clinic in later years can be traced to the influence of this surgeon who was so fond of saying, "Gentlemen, it is remarkable what one may find within the abdominal cavity." J.B. adopted this remark as part of his repertory of humour. "My old teacher, Carl Schröder, used to say," became a frequent introduction for passing on invaluable clinical impressions to his own assistants and students.

He had been in Europe about a year. His knowledge of German had progressed steadily; he could now speak creditably. He had formed several close associations with younger men in the clinic and spent much of his time discussing surgical and clinical problems in their own language. It was time, he

thought towards the end of the summer of 1883, that he should go on to Heidelberg and finish his *Wanderjahre*; there he would study with the great Julius Arnold. Pathology, pathology, pathology. He was learning much, but getting no surgical practice whatever. Was there not danger of over-theorizing? He did not think of it. He was enjoying every minute of the work. In after years he often looked back upon those German months as being the happiest of his life. He was doing what he loved to do, working and learning.

He turned towards Heidelberg with pleasant anticipation. His health was good: the hæmaturia had not returned. There was every reason to believe that at Heidelberg he would actually become a part of the university. The clinics in Vienna and Berlin, although they had been intensely interesting and although he had learned much in them, had not the same association with university life as Heidelberg. Not only that, but if a man was able to say that he had been a post-graduate student at Heidelberg he had a feather in his cap to cause envy everywhere. Heidelberg, of all great universities, carried the most prestige: the universities of Vienna and Berlin together did not carry as much. It is understandable, therefore, that in later years when he spoke of his early studies abroad Murphy referred most often to Heidelberg.

In Julius Arnold Murphy found another man who, like Schröder, appealed to the imagination and emotions of his students. He too fascinated the hero-maker, took his place in J.B.'s hall of fame. As was his way, J.B. drained what he could from him and in return gave from his rich store of adulation and appreciation. But while he had come to study surgery he was learning more of teaching, and the question was whether he wanted to be a surgeon, a teacher, or both. Now he decided he wanted to be both, as Arnold was both, as Schröder and Billroth were both, as Fenger was both. He found himself chafing to appear before a class of men and

demonstrate his skill. He never actually realized it in so many words, but the truth is that he needed an audience. With an audience his work was swifter, surer, more brilliant; with an audience his confidence was supreme. Arnold fostered this in him. Like all men of his make, the best came out of him only when he played to the grand-stand. If this be conceded the man escapes much of the criticism which was visited upon him in later years. That was his nature; and if that nature did not fit into the mould prescribed by his colleagues, then more power to Murphy that he did not cramp it to fit. In his defence it should be pointed out that all the fundamental sciences pertaining to medicine and surgery were fresh and unexplored—they were new and dramatic; their very nature, therefore, gave him every opportunity to express himself. To look into a microscope to-day, when their demonstration is a commonplace event, and see bacteria for the first time and to realize that such minute structures are the actual cause of disease still holds an incredible thrill for the medical student. What must it have meant to Murphy and his contemporaries?

For all his care of it his money was running low, but not his enthusiasm nor his desire to remain in Germany and continue his studies. He received a letter from Dr Lee suggesting that he come home. "I think you should begin considering your return," Dr Lee wrote him.

Now is a good time to pick up practice in Chicago. Don't you think you have been over there long enough? Don't you think you've stored away enough theory? Isn't it about time you returned to practical work before you become too scientific, before you forget that surgery is more of an art than an exact science?

That was true—and it was true too that Dr Lee needed him. His practice had grown considerably, and there was much work to be done.

J.B. packed his belongings and bade his many friends, including the idolized Arnold, good-bye. Now, at last, he was to face the stern realities of his professional life. In saying good-bye to Heidelberg, in leaving the lovely old town, his friends, the beautiful Black Forest, the Neckar river flowing swiftly under the spring sunshine, he was leaving behind him his long, long student years.

CHAPTER VII

MURPHY returned home in the spring of 1884, aged twenty-six, to find his name still on Dr Lee's office door. Not with him, but simultaneously, Frank Billings, who was concentrating on the diagnosis and medical treatment of diseases, now called internal medicine, and William T. Belfield, who had devoted himself to the study of genito-urinary diseases, also returned to Chicago after studying abroad. Wherever these three young men went the fact that they had gone to Germany for post-graduate work preceded them, for it was an enviable thing to have studied abroad. All their fellows who had remained at home felt that they had missed much and wanted to know what the travelled trio had learned. They were anxious to be told that America was keeping pace with Europe in medicine and surgery, but that was not what they heard. Even if it had been so they probably would not have heard it, for in returning from foreign lands it is a human failing to romanticize them, to make them seem wonderful and mysterious. Murphy did that, but perhaps he was justified. Questions were asked in hushed, reverent voices, and by his answers he was expected to make studying in Germany extremely difficult and vastly illuminating.

Dr Lee was justly proud of J.B., feeling that, in a sense, he was his own creation. He and all his patients, to whom without exception he had spoken about his young assistant, were waiting with open mouths and held breath for the oracular words and astonishing deeds which they were certain would come from the young man. For the first time

Murphy had a taste of playing the lion. He liked it; but, like all things, good or bad, it had to end some time, and sooner or later he had to settle down to the routine of regular practice. The work was there to be done, an abundance of it—but not the kind of work he wanted to do. He had learned things; he wanted to put them to the test. He was a ‘specialist,’ a surgeon—that’s all he wanted to be. Yet he was asked to prescribe for whooping-cough and colic. For all his training, for all that he knew, he had no patients to operate upon. Thus he was a surgeon in name only. In the first place, the public was no more educated to surgery than it was to the use of hospitals. When a man became sick he did not think of going to a hospital, but settled himself in his bed at home. If there was any operating to be done the doctor was expected to rig up the kitchen table and assemble whatever instruments he could. But there was little operating done of any kind. When people fell ill the majority took pills, applied plasters, had a ‘blood-letting,’ and hoped the trouble would go away. As Murphy, several years later, said of this period, “The popular practices of the medical profession were far in arrears of its intelligence.” He need not have confined this statement of fact to any period; it has been so always.

At that time the west side of Chicago, where Dr Lee had his office, was a very fashionable district. Streets now lined with hideous houses then were bordered by beautiful trees. Some of the old grey and brownstone homes still stand, but then there were grass and flowers, bridle-paths and hitching-posts. There were six iron doors to every block, and each house had a wide veranda on which stood rocking-chairs for an evening’s sitting. Fine horses pulled tasselled carriages along the streets, and on Sundays ladies and gentlemen strolled along under the trees in a parade of fashion. With the opening of the West Side Driving Park, on the prairie near what is now Garfield Park, “fast young men” speeded trotting horses

past the church doors on Washington Street, showing off for their lady friends.

All this Murphy saw without being a part of it. How could he be? That required money. For all his education he was very poor, had always been very poor. But because he had always been poor he was determined to be poor no longer. He too would ride in an expensive carriage behind fine horses; he too would have a brownstone house; he would belong to the best clubs and wear fine clothes and know the right people.

On the day that J.B. had decided to become a doctor Dr Reilly had warned him about the patients who could not or would not pay. Dr Lee repeated that warning in terms that were specific and emphatic: "You must never permit yourself to be imposed upon by people whose aim from the beginning is to defraud you of what you have rightfully earned. Learn to know who they are and treat them accordingly. A doctor's work is arduous and endless, and the least your patients can do is to pay you what they owe you."

The majority of Murphy's patients were of the poorer class; many of them were among the poorer Irish families, the Italians, and other foreign-born residents of the neighbourhoods to the south and west of his office. Because it was the custom to pay the doctor in cash for each visit those people seldom called for help until the situation was desperate. Some there were among them who had money, but pretended to be penniless, so that they might cheat Murphy out of his fee. J.B. often told the story of one of these cases.

One night during this period of his life he was summoned to the home of a miserly family that he knew to be fairly well off financially. After making the patient as comfortable as possible J.B. started to take his departure. At this point he was asked what his fee would be. "Two dollars," was the reply. He was assured that it would be sent to his office on the morrow. Several months passed, and although bills were

sent at intervals, he never received payment for the call. A year or more later he was again summoned to the house—again an emergency call in the middle of the night. This time the patient was the baby of the family, and she had a buttonhook stuck up her nose. Her parents' efforts to extricate the hook had failed, and in their fright they had called the doctor. At a glance, according to J.B., he saw that it was a simple matter to remove the hook and that it was doing no harm whatever, save to excite the family. So, without any move to extricate the offending instrument, he asked the mother for his fee in advance, as well as the two-dollar fee long overdue. Down went the lady into her stocking. Grudgingly she peeled four greenbacks from the roll brought forth and gave them to the doctor. J.B. then slipped the buttonhook a little farther up the child's nostril, turned it, and drew it forth. Needless to say, that was his last call on the family.

According to those who knew him then, J.B. made no secret of his desire to become rich, and said frankly that the way to wealth was to earn money and save it. Families like that of the buttonhook episode disliked him because of his shrewdness, and their versions of his methods of exacting just payment lost nothing in the telling. In the years that were quickly to follow they became myths of impossible proportions. But his professional enemies were quick to seize them and use them against him as examples of unethical practice. On one occasion, said his enemies, J.B. required a family to produce 300 dollars before he would intubate a child ill with diphtheria. Again, they said, he demanded a cheque for 267 dollars when the patient's bank-book showed a balance of 267.30 dollars. J.B. never troubled to deny these stories, and the tallest of them probably had its foundation in the case of the famous buttonhook.

Work was plentiful, but operations were few and far between, and those that he was called on to do were minor

ones—any doctor might have done them. But he, J. B. Murphy, was equipped for more difficult things. Had he not attended the clinics of some of the world's greatest surgeons? Did he not know more about surgery than any doctor anywhere near his age in Chicago, even in the United States? Well, he felt he did, anyway. He must keep his hand in. Why should he be lancing boils, and, with his knowledge and surgical ability, why should he be treating measles, whooping-cough, and the mumps?

"I'm stagnating," he told Dr Lee.

"You're young, son. Remember, it takes time to make your abilities known. Just remember that while you're treating these simple diseases you're making friends. If you can't cure them of whooping-cough and ringworm it isn't likely they'll ask you to operate on them."

"But meanwhile I'm getting rusty. How can I keep in practice?"

"Don't be impatient. There's the County Hospital. Maybe I could get you in as an attending surgeon."

That was not as easy as it sounded. He needed more experience to go with his prestige. Meanwhile, since J.B. had graduated, Dr Nicholas Senn had been appointed Professor of Surgery at Rush. Dr Lee suggested that he approach Dr Senn and ask for a place on the Rush faculty. As a member of the faculty he would be more acceptable to the directors and trustees of the hospital. Senn was impressed by the young man's personality, by his seriousness of purpose, and his enthusiasm. In due time he appointed him to the faculty as instructor in surgery. "But I advise you not to devote your life solely to teaching, Murphy. Your opportunity lies over there in the County Hospital. Don't wait too long." At that time Senn had no idea he was fostering a man who would become his rival for surgical honours, for the leadership of their profession in the Middle West.

It was common knowledge that Fenger had paid 1000 dollars for the privilege of introducing the study of pathology into the hospital, and J.B.'s resources, even if he had believed the position worth that much, would not stand such a drain. The young man left the matter to Dr Lee's management and discretion, and his sponsor did not fail him. With the instructorship in Rush assured, Lee managed to pry open a place in the hospital big enough for J.B. to crawl in. Soon the younger man was ranked as a full-fledged attending surgeon. Thus he found himself with two feathers in his cap instead of one. Here was the opportunity to perfect himself in surgery, to make his hand and his mind dexterous, to seek for the great principle which would put his name high up on the honour roll of surgeons.

"But," Dr Lee warned him, "don't neglect your practice. You must continue to look after people's diseases. You must make yourself known."

First he must get prestige, then he must make himself known, then he must get experience, and finally, after a long, long time, maybe he could become the surgeon he knew he already was. Why must a man wait so long before he was permitted to do that which he knew he could do? Why must he spend the best years of his life playing a minor rôle when he was capable of startling the world? He was well now. The ailment of Vienna had not reappeared. He was impatient. His ambition wouldn't wait for time and circumstance. It demanded of him action, not waiting.

II

In one of those grey stone houses which sat so staunchly behind spreading oak-trees in Throop Street there lived a wealthy family named Plamondon. Their imposing home faced a small square park which was bordered by the homes

of families prominent in the business affairs of the city. Alfred Plamondon was a French-Canadian who had married a County Limerick girl. He had established a sound and profitable business manufacturing gears, shafts, and other power-transmission machinery. Besides the mother and father, the family consisted of three boys and two girls. Dr Lee was the family physician.

One day early in 1885, after J.B. had been home about a year, Dr Lee was called to the Plamondon home. The messenger, one of the Plamondon boys, was very much concerned about his sister, Jeannette, who, he said, was very ill. Dr Lee, otherwise engaged, was unable to leave his office immediately, but he assured young Plamondon that his associate, Dr Murphy, was alert, capable and intelligent. He could go.

The brother was doubtful, but polite. J.B. accompanied him down the flight of stairs and climbed up beside him in the very stylish carriage, the first intimation J.B. had that he was dealing with wealthy people.

"How old is your sister?" he asked, as they rode along.

"Eighteen."

"So young! What seems to be the trouble?"

"It looks to me like the measles," her brother said. "She's got spots all over and a high fever. I'm sure she has a high fever—she's very hot."

It is improbable that J.B.'s social life or professional practice had ever taken him into a private house as elegant as that he now entered. In the hall he stole a glance at himself in a mirror. His red-blond beard was severely trimmed and carefully brushed; his frock-coat, his collar and tie, were perfect—the entire effect was all that the most exacting could ask of a young doctor. Introduced to the impressive mother and father of the patient, J.B. found himself losing his nervousness in their apparent approval. They led him up the stairs and into the bedroom of their daughter.

J.B. wasted no time on the room, a charming one filled with all the costly trifles that are the setting of a belle and a beauty. Among the pillows in the heavily carved bed lay a lovely, dark-haired girl who might well have made a more worldly man than J.B. catch his breath. With an air of assurance that he was far from feeling, he crossed to the bed and sat down beside it. He gently took the patient's hand, felt her brow. Wanting to make no mistake in his diagnosis and wanting, no doubt, to impress the Plamondons with his skill and knowledge, he took his time. At last, with a gentle word of encouragement to Jeannette, he left her and bowed her mother and father before him out of the room. In the hall he told the parents that their daughter had typhoid fever. Keeping to himself the danger of pneumonia and perforation of the intestines, he stressed the importance of careful nursing until the disease had run its natural course. He declined a glass of port and promised to return that evening, or to send Dr Lee, if they preferred.

"By all means, come yourself," said Mrs Plamondon. When J.B. had gone she told her husband that she thought the young doctor a most exceptional person. When she went up to see Jeannette she found that young lady very much excited about J.B. They laughed about his very Irish name, the possession of which was a sure way to the heart of the mother.

That evening when J.B. came again he learned that Mrs Plamondon had come from County Limerick, as had his father. Soon he and the Plamondons were on the most thoroughly friendly terms, and Dr Lee had lost a wealthy patient. Each day he came once or twice, more often the latter, to see the charming Jeannette. There had been no complications, no setbacks, but for some reason the patient refused to consider herself strong enough to do without the very frequent visits of her physician.

Jeannette Plamondon, called Nettie by her family, eighteen, and the spoiled darling of a wealthy family, had fallen desperately in love with the red-haired, bearded young doctor and quite definitely had made up her mind to marry him. Even had he been averse to the idea it is unlikely that J. B. Murphy stood a chance of escape. The truth of the matter is that he had no desire to escape. He had found the Girl at last; lovely, charming, rich.

III

It was a morning in May. Bright sunshine came in through the trees outside and dappled across Nettie's knees as she sat talking to the man she loved. She knew that she made a pleasing picture, her dark hair charmingly arranged, an attractive dressing-gown artfully draped about her slender figure, the whole framed by the back of a large armchair. J.B. sat on a sofa facing her. He had worried over the possibility of complications arising, but now that she was well on the road to recovery he was relaxed and happy. He had discussed the case with Lee since the beginning, but neither he nor the Plamondons had asked Lee to lend a hand. Lee, genuinely interested in the future of his young assistant, had seen how matters were progressing and was as delighted as though J.B. were his own son. A rich wife would be the making of the younger doctor.

Alone with J.B. and removed from the necessity of talking about her illness, Nettie turned the conversation to J.B.'s work. Did he mean to continue with a general practice? He wanted to specialize as a surgeon? Did that mean that he wanted to do nothing but operations? She was deeply impressed when J.B. told her that he felt that by surgery he could best serve humanity. With a practical sense that must have reminded him of his mother the girl asked if there was as much money to be made as a surgeon as there was through

a general practice. He told her that a surgeon with a reputation got patients from other doctors as well as those who came directly to him. The word "reputation" fascinated her; naïvely she asked if a doctor could not advertise. J.B. laughed at the idea of such unethical proceedings and at length explained the high standard set for itself by the medical profession. The girl listened with interest and intelligence, then remarked that if a doctor could not advertise he should call attention to himself in other ways; he should drive a fast horse, live in a nice home, and entertain the right people.

When J.B. said that a doctor, even a successful one, could not entertain too much without being considered frivolous Nettie wisely declared that he could join good clubs and societies. J.B. said it would be fine, but that good clubs were expensive. The girl smiled; secretly she was imagining him successful and established, and she was unselfishly planning to finance the campaign for his success.

This was the first of many unnecessary visits. To her family Nettie made the excuse of feeling weak and said that she felt terrified at the thought of being without a doctor's care and advice. Alone, the couple talked of little except J.B.'s work. Nettie drew from him the full story of his struggle for an education, the story of his time at medical school and in Europe. She drew him out on the subject of his work at the County Hospital, of his patients there, of the operations he did. When she learned that he hoped to have a laboratory where he could conduct surgical experiments with animal subjects she said that such a building should be part of his home. J.B. was not very optimistic about owning a home, but Nettie brushed aside any idea of limitations. She said that her father thought that doctors were bad business men, and never knew how to invest their earnings. J.B. had no money to invest, and he was too modest to see that Nettie was giving him the opportunity to ask her to share a home and his income.

He had told her that he was poor, and while that did not seem to upset her at all he was slow to take advantage of her obvious attachment.

When Nettie was well enough to make a doctor's visits ridiculous she found other excuses for seeing him. Telling J.B. that she was interested in his cases, she asked to be shown through the County Hospital; she was interested in his work and she wanted to see the place where he did it. When J.B. said that she might see unpleasant sights in the hospital she shrugged the idea away, and in due time she arrived to be shown the things that were being done for the county's ailing poor.

With so interested and intelligent a visitor, J.B. became a most enthusiastic guide, showing and explaining the routine of the hospital to the best advantage. He started in the receiving ward, to which the police patrol-wagons, drawn by the fastest horses, brought the sick and injured. He showed her how the dirty, vermin-infested patients were bathed and clad in clean hospital gowns before they were taken to the wards. Down the corridor he showed her the huge kitchens, where the smell of newly baked bread mingled with that of carbolic acid to produce an odour so characteristic of large charitable institutions. This was the autopsy room, where Dr Fenger showed doctors their mistakes in diagnosis and treatment so that the next patient might profit.

Nettie manifested keen curiosity, was properly awed, surprised, and delighted with everything he showed her. She won him then. From that day his fate was sealed, and he discovered that his work and concentration were being interrupted by thoughts of Nettie. It was the custom in that day for a young man who persistently called upon a young lady to let his intentions be known. He could not continue calling on her with the excuse of checking up on her physical condition: they had long ago run that excuse to the ground;

neither could Nettie's interest in his work remain unexplained. Besides, there was a rather quizzical look in the eyes of Mr Plamondon when he greeted him at the door. The time was drawing near when J.B. would have to declare himself.

As in the past, when he found himself faced with a far-reaching problem demanding an intelligent decision, he wrote to his mother and told her of the lovely Jeannette, who, although ten years younger than himself, had so much good common sense. He explained that the Plamondons were people of means and that they stood high in Chicago society. "I have no assurance that she will accept me," he wrote. "After all, I am only a hard-working young doctor without money or social connexions."

His mother's reply was characteristic of her:

It makes no difference that she's younger; she'll love you the more if she loves you at all. Society or no, you're from honest, God-fearing folks, and you must remember always that nothing's too good for you. Speak up, my boy, and don't make apologies for asking her to be the wife of a Murphy.

Thus his mind was made up. To his delight and to the delight of her parents, who had come to admire him greatly, Nettie accepted him. The trap had been set by the fox and sprung by the man. Already Nettie had decided that her future husband was a genius, the greatest surgeon in the United States, if not in the world, and it was going to be her job to let the world know about it.

IV

On November 25, 1885, Ann Grimes Murphy, dressed in a prim new black silk dress, saw her sandy-haired youngest take a lovely black-haired girl to the altar. The affair she looked on—the church decorated with a wealth of flowers,

the silks and satin of the women, the shining top-hats and broadcloth of the men, the reception with the fine food and rare wines, gold and silver and crystal and delicate china—must have brought strange comparisons to her mind, must have made her think of her own pioneer wedding and her life as Michael Murphy's wife. Surely this was progress for the Grimeses and the Murphys. In that ceremony Ann Murphy saw the fulfilment of a lifetime's ambition. She had worked with all her strength to raise her children above the level of the common herd, to make them more than hewers of wood and drawers of water. Here was her son, a surgeon with a European education—the very best that a man could have—marrying a brilliant girl, the daughter of one of Chicago's leading families. Even *The Chicago Tribune* took notice of the wedding. The following day there appeared in the column headed "The City" this item:

At 10 A.M. yesterday morning at St Patrick's Church Dr John B. Murphy and Miss Nettie Plamondon were united in marriage. Grand nuptial high mass was sung by the Rev. Father Murphy, brother of the groom, assisted by Father Galligan, the pastor. The bride was attired in a white satin dress heavily trimmed with duchesse and point lace, with diamond ornaments and a tulle veil. She carried a white prayer-book. Miss Genevieve McMahon was bridesmaid, and Frank Murphy, a brother, was the best man. There was a reception from twelve to two at the residence of the bride's parents, Mr and Mrs A. Plamondon, of 36 Throop Street. They left for a two weeks' trip to Wisconsin on their honeymoon.

Thus Daniel, the priest, and Frank, the druggist, were present at the wedding, and so was Ellen with her mother. Lucinda could not leave the convent, and Michael, junior, thought it too far to come from the Dakotas to Chicago just to attend a wedding.

"It was a grand and beautiful wedding," J.B.'s mother is

quoted as having said. "Johnny has a darlin' wife with beauty and a mind of her own." A statement which must have made her think a moment, for then she is said to have added, "Some women join their man's family, but this day he becomes a Plamondon. But what of it? Mike Murphy, God rest his soul, was lost early among the Grimeses."

CHAPTER VIII

IF a man works long enough, hard enough, and intelligently enough opportunity eventually will notice him, will sympathize with him, and will lend him a hand. The Haymarket Square Riot of 1886 was the ill wind which blew J.B. good. He and Nettie had returned from their honeymoon to settle down in their new home, which Nettie's parents had given them for a wedding present. It was next door to Number 36 Throop Street, and was, therefore, an extremely dignified stone edifice: a home such as fitted perfectly into the young doctor's dreams. In the months since their marriage they had been busy learning about each other, trying to please each other, and all the while falling more and more in love with each other.

The winter had slipped by pleasantly for all its wretched weather, and now spring had come, and with it a period of labour unrest. As Time nibbled into May the whole city was concerned over a strike of workers in the McCormick Harvester plant two miles to the south of Throop Street. For several weeks there had been disturbances in lumber yards and tailors' shops. A group of professional agitators, now called union organizers, had come into Chicago with the intention of unionizing certain trades of the onrushing city. Newspapers commented that "many workers were affected with a malignant form of the eight-hour-day malady." Indeed, the situation threatened trouble. Several guns had been fired, a handful of heads had been bashed in; Louis Lingg, one of the agitators, had spent long hours in his miserable lodging making bombs out of dynamite and iron piping.

On May 4 a meeting of strikers was called for the evening in Haymarket Square. Haymarket Square was the place to which farmers brought their hay and mules for sale on Saturdays. The meeting followed a day of screaming and speech-making, of rising anger and sporadic fighting, of hurling stones and cries of "Revenge! Revenge!" The workers were crying for revenge against the rough treatment accorded them by the police. Thus, as do many strikes, the fight settled down to a distinct struggle between workers and the police, with capital waiting on the outside.

Nettie's father came home at noon with word that the labour situation was reaching alarming proportions, that some drastic action should be taken to curb the violent agitators. As a manufacturer, he was having trouble at his own plant. J.B. came home that evening with the news that a mob had marched on the McCormick factory, that they had thrown stones and broken many windows in the plant, but that they had eventually been dispersed by the police.

"You should have seen Mayor Harrison driving down the street lickety-split," he told Nettie, laughing, "with his whiskers flying in the breeze. He got there fortunately, I think, after it was all over. He was booed and hooted on all sides." J.B. had a circular in his hand. Nettie took it from him and read:

Attention, Working Men!

GREAT MASS MEETING TO-NIGHT!

7.30 P.M.

RANDOLPH STREET BETWEEN DES PLAINES AND
HALSTED

In spite of the fact that she was going to have a child and that her husband had begun jealously to regulate her life, Nettie was thrilled by the drama of the labour trouble and wanted to go to the Haymarket to see the excitement. J.B.,

tenderly elated over the coming of a baby and filled with concern for his wife, refused to listen to such a plan. He said the language Nettie might hear would be bad enough and that there were likely to be heavier things thrown than hard words.

Nettie went for her customary walk, but it began to rain and she hurried home to close the windows on her new lace curtains. The rain, however, did not discourage some six hundred men and women interested in the labour movement; they gathered a few yards north of the Square, in Crane's Alley, to listen to the labour leaders harangue them. Many of the ringleaders carried torches which lighted up the impassioned faces of the speakers and the eager faces of the listeners.

This was the scene when a detachment of police from the Des Plaines Street Station marched into the mouth of the alley. An organizer named Spies was speaking to the crowd, and waiting their turns, among others, were Fielden, Parsons, and the bomb-maker, Lingg.

The following is from a newspaper account of what ensued:

The police platoon filled the street from side to side and swept the crowd before it. As the column of officers arrived at the wagon on which the speakers were standing Captain of Police Bonfield cried, "In the name of the State of Illinois I command this crowd to disperse."

A hoarse muttering went up from the mob, which slunk back before the officers and were about to obey the command when from the alley behind the wagon a slight sputtering noise was heard, and what seemed in the darkness to be a spark of fire sailed through the air and fell in the middle of the street immediately between the two rows of policemen. As the object struck the ground a loud explosion was heard, and a large gap was seen in the ranks of the officers. For a moment a deathlike silence reigned. The officers were paralysed with horror, and the crowd was terrified at the consequence of its act. For only

one moment, however; for with demoniac yells the rioters pulled revolvers and began firing into the little squad of bluecoats, who for a moment stood appalled. Then the officers closed up the gap in their ranks, and, drawing revolvers, advanced with slow and measured tread, firing as they advanced, and firing to kill.

The terrified crowd began to scatter and fled like cowardly curs, knocking each other down in their flight and tramping on their prostrate comrades. In five minutes the street was cleared of all except the dead and wounded.

After his evening office hour J.B. made his necessary calls and reached home about ten o'clock. Nettie met him at the door. She was very much excited. "Something terrible has happened over in Haymarket Square! They need you! Three different men have been here to take you to Des Plaines Street Police Station. They say almost a hundred policemen are badly hurt!"

The sight Murphy saw as he entered the police-station was worse than he had imagined. Both floors of the station-house were covered with wounded and dying men lying in pools of blood. Captain Ward, in command of the station, rushed to Murphy.

"My God, doctor! I'm glad you're here! Now maybe we can do something!" The first man Murphy saw was an old friend and patient, Policeman Shannon, who was lying near the door. "Some of these men are dying," the Captain went on; and from their cries, moans, and groans there could be little doubt about it. Many of them had large gaping, bleeding wounds in their abdomens, chests, and lower extremities. "We don't seem to be getting anywhere," the Captain said frantically. "Why haven't the doctors sent these men to a hospital? No one seems to want to take charge. Something must be done at once, doctor!"

Murphy bent over Shannon. There was a large sucking

wound in his chest. With glazed eyes he stared into the face of his priest. Stopping only long enough to press the poor man's cold and clammy hand, J.B. ordered morphine for him and passed on to Policeman John Barrett, whose abdominal wound was large enough to admit two fingers. Blood was seeping from it, and when J.B. removed the clot blood spurted from the liver. Working quickly, calmly, as if the emergency strengthened him, J.B. packed gauze into the liver and ordered the man to be removed to the hospital. Thus he passed among the wounded, going to the second floor when he had finished the first; giving large doses of whisky and morphine to men pulseless, drained white, and frozen with shock. Those less dangerously wounded were kept in the station and dressed by Dr Lee, who had arrived on the scene. As for J.B., when he had done what he could at the police-station, he hurried on to the County Hospital for a long night of operations. He had wanted surgical cases? Here was a windfall.

Working as rapidly as possible without sacrificing any patient who had a chance, he operated upon one after another. From the first he realized that the wounds were of a peculiar nature; produced by fragments of shells, each wound contained large bits of clothing and other foreign material. In several instances the injuries showed only small openings outside, but inside the body the soft parts were terribly torn and lacerated.

Nurses and assistants were dropping out one by one as the night wore on and they became exhausted. The patients, as they brought them up, could be heard groaning in the next room. When the interns went to bring up another each of them would beg, "Please take me next, doctor! My belly's killin' me! Honest to God! I'm afraid I'm a goner if you don't take me now!"

Eight officers succumbed during the night, but J.B. was still going at eleven o'clock the next day; dog-tired, but

absolutely enthralled by the work Fate had brought. He could have gone on for another twenty-four hours, or felt he could; for he was an artist whose inspiration came through drama, whether in saving the lives of men who otherwise would die or riding through the cold of a Wisconsin winter's night to fetch a doctor for the sick Lucinda. When he had patched up the last man, as he came from the operating-room full of weariness which made his head light and his face white and his hands shake—as he came out thus from the operating-room he was forced to face the horde of mothers and children who were hysterical still with fear for the lives of their husbands and fathers. He had to face that throng and take time to talk to each of them and tell them the truth, although he knew Nettie was at home, waiting and wondering. Suddenly he had finished, and as he climbed into the buggy he felt complete exhaustion. He let the horse take him home by itself. Once there, he slept long and deeply. He had done the work of three men, and had done it well.

II

The applause for his performance was to come later—the applause and the criticism. For the first time he was to encounter the censure of his colleagues; for the first time he was to suffer from the sharp fangs of scandal.

Murphy was called as a State witness at the trial of eight men charged with first-degree murder in connexion with the bombing. All attempts of the police and the district attorney to discover the identity of the man who actually threw the bomb were of no avail; but to pacify the newspapers and the public these eight men, recognized as having been leaders of the mob, were arrested and indicted. J.B. was called by the State to prove that the wounds of the dead policemen were produced by shell and bomb fragments rather than by pistol

bullets. The defence claimed that the officers had shot each other in excitement. Only Murphy, of the several doctors who had attended the wounded men, was called to testify. Although he was called through no connivance on his part, still it left him, his actions, and his words open to criticism by other doctors, and especially by those who had attended the wounded policemen and who were not asked for their testimony.

To Nettie's immense satisfaction and delight, J.B. proved to be a valuable and interesting witness; this in spite of his indecision regarding the justice of the State's case. Placed in the centre of the stage, he was wholly at ease on the stand; so much so, in fact, that the defence attorneys objected strenuously and repeatedly to what they called his lecture on surgery. But Judge Gary, an honest man who was neither learned nor a student, was interested in the witness's vivid, and sometimes dramatic, description of how he had removed a piece of iron fragment covered with clothing from over the base of a policeman's heart; and so he overruled the defence's objections.

Whereupon J.B. continued: "The fragment passed in a direction from left to right, tearing off a piece of the breast-bone, and lodged behind the large vessels at the base of the heart, which I could feel pulsating against my finger." At this point the judge leaned forward and asked, to satisfy his own curiosity, if the patient were still alive.

"He is, your honour," J.B. replied, "but he's developing an aneurysm."

"What is that, doctor—heart disease?"

"No, sir. An aneurysm occurs when the wall of a vessel is weakened either from disease or from injury. The vessel dilates to a certain extent and then bursts, just the same as a hose does."

And when the defence objected again Judge Gary said, "I can't see any objection to the doctor's detailed testimony. It is a subject about which we are uninformed; and if a shell-

wound differs from a bullet-wound in character and effect we should know about it."

J.B.'s quick and competent care of the wounded policemen and the interest the Press showed in his testimony focused the attention of the entire city of Chicago on him. Re-reading the official record, one can hardly escape the dramatic intensity with which the doctor told his story; but, on the other hand, one is struck, too, by the man's honesty. In spite of the fact that he was testifying for the State, he did not align himself with the prosecution. As truthfully, as carefully, and probably as dramatically as he knew how, he was teaching the judge, jury, and spectators the correct methods of recognizing and treating certain types of wounds. Thus in the witness-box there came to the surface the schoolmaster in him, the surgeon, and the actor.

His testimony was reported by the newspapers in detail. The defence attorneys' objections to his testimony only served to emphasize it. His schoolmaster's dogmatism, his evidently thorough acquaintance with all his patients, the nature of their wounds and their suffering, made the newspaper-reading public believe that here was a doctor who knew what he was talking about. The defence offered no medical testimony in rebuttal.

In spite of the heat, the crowds, and her condition, against J.B.'s wishes and advice, Nettie attended the trial. After the adjournment on the first day they met in the passage. "You were marvellous, my dear!" she greeted him, full of a wife's pride and of a newly-wed's love. The State attorney had seemed to think it important that J.B. give all the details. But what would the medical profession think of the testimony? He feared that the newspapers would give him an unwelcome amount of space.

Nettie could see nothing but benefits to come from so much prominence. Her husband had been given a chance for

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wonderful surgical work, and he had done the work brilliantly. The newspapers were impressed by him and considered him an outstanding man. J.B. loved her praise, but he could not share her opinions on his free advertising.

He had sensed the situation correctly. He had been summoned as a witness and had testified to the best of his ability, but the sudden prominence into which the trial and the newspapers had thrust him caused many of his colleagues to accuse him of deliberate histrionics. Whisperings against him became the rule rather than the exception. Those doctors who did not like him for personal reasons, those who were envious of him and his European background, those who felt that he had stolen more than his share of patients from the Haymarket disaster, those who resented his assumption of responsibility for all the wounded taken to the County Hospital—all these gentlemen climbed upon the critical wagon and blew their horns against him. They said there must have been collusion between the hospital authorities and Murphy for him to have had all the cases assigned to his service, and they said there had been an agreement as to the division of the fees collected. The indignation of certain doctors knew no bounds when they recalled to each other his "thinly veiled lecture" in the witness box, in which he had pointed out the difference between his methods and those of the general run of doctors—to the detriment of the latter. In the profession, which is still quick to condemn, he was stamped with the indelible imprint of unethical practices. Indelible, because almost fifty years after the trial and some years after Murphy's death several of his contemporaries, who in the meantime had made reputations for themselves, became choleric in discussing "the high-handed methods of that wild Irishman" following the Haymarket bombing.

"Don't trouble to deny the story," Dr Lee told him. "But I think you should know that some of your competitors say

that you demanded and received exorbitant fees from those police officers." There was a friend, indeed, and how often had Lee proved it! "You know and I know," the older man went on, "the absurdity of getting large fees from these men."

Murphy was made wretched by the coldness with which he was greeted by his fellows, yet he spoke to no one of the unfair censure save to Nettie; to her he let down his stern reserve, in her lap he placed his troubles. "You can maintain a dignified silence," she counselled him. "It probably will be misinterpreted by your enemies as a confession, but they wouldn't believe you if you told them the truth. You don't have to convince your friends."

"But rumours—they're so difficult to meet! I'd rather be indicted and have an opportunity to defend myself in the open. Why, they go so far as to say I got thousands of dollars!" And he laughed bitterly. "There's a bit of humour for you."

"You did get large fees, J.B., but not in dollars. Your fees will be paid in the legitimate publicity you have received. There's where the rub comes with those men. Where do they say your large fees came from? Surely not from the policemen themselves?"

"Lee says their answers on this point are vague and are hidden by blustering and loud talk which simmers down to, 'He got them all right!'"

"It's the same in every profession, my dear," his wife said to him. "Lawyers may admire the ability and audacity of one of their fellows, but let them get a chance and they'll attack him on his ethics. The professional man who leaves the rut is open to criticism. The doctor who eventually discovers a cure for cancer may be smeared with tar and booted from his medical societies. Time is a good healing ointment for just such sores."

The favourite narrative has been that Murphy's fees from those wounded in the Haymarket bombing were enormous,

and their amount in thousands of dollars has risen through the years. But the actual facts do not support the legend. If the wounded themselves could not pay much, where did the fortune of fable come from? There is no record of any payment to Murphy by the city for the care of the policemen; and there is no record of any legal suit which, it has been claimed, he brought against the city. At that time the Mayor of Chicago, Mr Carter Harrison, had no contingent fund for which he need not have accounted, as is now true. Had there been such a fund it is unlikely that it would have been used to pay for medical care. It would require stretching the imagination considerably to assume that the city fathers of that day were any more appreciative of medical attention than they are at present. Because of the poverty of policemen at that time a movement was set in operation through which a sum of 40,000 dollars was raised for the benefit of wounded policemen and the wives and orphans of those who died from their wounds. Thus was evolved the first pension fund for municipal employees in the United States. One of the survivors of the Haymarket disaster, an active representative of the pensioners, swears that Murphy never received a cent from the fund.

It is a pity, but it is none the less true, that the medical profession more than any other is most smug. Doctors seldom call a professional fault by its name, but under the nebulous, changeable ægis of ethics they are for ever criticizing one another. Few doctors ever attain prominence but that they are belittled by their fellows; for doctors have pride, envy, rivalry, and a score of other motives for depreciating one another. Of all weapons the tongue is the most poisonous, and, unfortunately, there is no stopping people's tongues. From what we can make out at this distance Murphy's most dreadful sin, if such it may be called, was in dramatizing himself, in overplaying a scene. His fellows never criticized him

for his dogmatism, for his almost insolent confidence in himself, for his utter depreciation of all other doctors. He was a surprising combination of super-mannish ego and amazing ability, and the combination enraged his colleagues.

Whatever his brethren might think of him, the laity's opinion of his abilities rose sharply, and his praises were sung by many a man and many a woman, the friends and relatives of Irish policemen. But in the thirty years that were left to him of his life, though he would never want for patients, he was never to be free from the cloud of calumny. When his colleagues wanted mud to sling at this man who rose in spite of them they had but to dip back into the Haymarket bombing.

CHAPTER IX

ON Christmas Day of 1886, only four days after his own twenty-ninth birthday, J.B.'s girl-wife gave birth to their first child. In spite of all he had seen of other men in just such a situation, the young doctor paced the floor as nervously as any other father, forgetful of patients, anxious, self-deprecating, wretched, weak. Many times had he made the statement that prospective fathers were the bane of the doctor's existence. They were fools to insist upon being present when the baby was born; but he worried every one on that floor of the hospital nearly to distraction until he finally was admitted to his wife's room.

The baby was a boy.

Overawed for the first time by a lusty-lunged infant, J.B. composed himself sufficiently to examine the child carefully for harelip, cleft palate, webbed toes or fingers, and other congenital malformations. Nettie's baby passed the examination perfectly. Not until he and Nettie had almost wept with joy together, not until they had decided that the boy should become a physician, not until they had decided his name should be Harold, not until he had revowed his love for her, not until he had warned her to rest, to sleep—not until then did he tear himself away from his wife and child to rush off to his patients. Some time during the day he managed to send word to his mother that she had a magnificent grandson, that the name of Murphy was to be carried on. He even descended to the conventional handing out of cigars.

But their happiness was short-lived. Six weeks after he was born both the baby and Nettie became desperately ill with

diphtheria. With an indescribable feeling of apprehension and despair J.B. saw the thick, tenacious, dirty-grey membrane forming in their throats. He had treated many cases in the last few years, and it was with terror that he remembered the mortality rate—almost 50 per cent. He needed help. That staunch friend, Dr Lee, did not fail him. Together they opened the baby's trachea and put in a tube so that he would not strangle to death. Day and night J.B.'s old friend sat by the bedside counselling, applying wet packs to keep the high fever down, and blowing powders into the patients' throats in an effort to cut the sticky formation. This was eight years before antitoxin was introduced in the treatment of diphtheria. After a fearful struggle Nettie recovered, but their first-born died.

That year—1887—was a bad one for Murphy. His son's death was but one in a series which occurred in his immediate family. Lucinda, his sister, died in her convent of pulmonary tuberculosis. His brothers, Daniel, the priest, and Frank, the pharmacist, died within three months of each other of the same "quick consumption" which killed their sister. Was this disease hereditary? J.B., deep in discouragement, found it easy to believe it was; he became convinced that he too had inherited a familial susceptibility to pulmonary diseases and, in particular, tuberculosis. His fits of moodiness, of despair, were mitigated only by work. But frequently during this period there was not enough work to satisfy him. He would come home to the recuperating Nettie and say, "As far as I know no more patients intend to consult me. The bottom seems to have dropped out of my practice."

Thus, with his wife ill, his child and his sister and his brothers dead, a lull in his practice, and with whisperings against him on every hand, all was black—all seemed hopeless.

II

But the furnace was not finished with him yet; there was more heat in store to temper him. In the midst of one of his worst periods of depression he was subpoenaed to appear at the trial of one William J. McGarigle, warden of the County Hospital. McGarigle had been indicted for malfeasance in office. In two years, it was said, he and his confederates had appropriated 750,000 dollars from the contracts for coal, surgical instruments, and other supplies bought for the hospital. Specifically it was charged that 11,000 dollars had been divided in the warden's office between ten county commissioners as payment for their votes in awarding coal contracts. Mike McDonald, a famous Chicago gaming-house owner, was one of the commissioners, and his brother Ed was the chief engineer at the hospital. It was Ed's duty to certify to the weight and quality of coal delivered to the hospital, and McGarigle's to certify the bills. Thus together they had what amounted to, in the vernacular, "a greased gravy train" to divert the city's funds.

This was called the "Cook County boodle ring," and as soon as McGarigle was arrested the newspapers exploded with stories of rottenness in all branches of the municipal government, and especially in the County Hospital. It was well known that the attending staff at the hospital were not proud of or even friendly with their warden, a political appointee; but Murphy was one of the minority. Both were Irish, and the Irish are notorious for sticking to the Irish, right or wrong. But it is not unlikely that J.B. found it expedient to be friendly with the warden; that by being friendly he was better able to gain certain equipment for his ward. That seems to have been Murphy's only connexion with the dirty business.

When he told Nettie the first thing she said to him was, "Is the warden a good friend of yours, J.B.?"

"Well, I'm not an intimate," was the reply, recorded by her. "I've found him always willing and obliging to help us get new supplies and apparatus. He's a big, genial, and plausible Irishman with a robust laugh and a great many friends. He's no better, but certainly no worse than any other official."

"Do you know anything definite about these boodle charges?"

"Not a thing. I suppose I'm to be a character witness."

"I wouldn't go too far in defending that man's character, my dear. I don't like his face." A woman's remark? Yes, but a cautious woman's advice also.

"I don't want to be his champion, Nettie. But I don't see how I can disregard the summons."

J.B. hadn't long to wait to learn his rôle in the drama. McGarigle asked him to his office for a "chat."

"Doctor," the warden began, after closing the door, "I asked my attorneys to call you as a witness for me. Now," he went on hurriedly, as J.B. started to protest, "I know you docs are sorta touchy about appearin' in court, but, damn it all, I need your help."

"You're right, warden. We don't like that kind of publicity, and I don't see how I can help you, anyway, unless it's as a character witness."

"Character witness, hell! I can get plenty of them. Lotta good they'll do me with that white-bellied outfit in the jury box. I need facts, man!"

"What facts have I got?"

"Now, doc, you remember that day you were in here and we was talkin' about some newfangled stuff you wanted for your ward? Some kind of a dressing-trolley it was. Remember?"

"Yes, I remember that."

"Well, don't you remember that skinny guy with glasses

that butted in here and wanted to talk about a coal contract? Right in this room it was, doc. You remember? He was only here a minute, an' the double-crossing devil says he passed 11,000 simoleons in a newspaper to me to get that contract. Can you beat it?"

"Yes, I vaguely remember our conversation being interrupted by some fellow that day. But I don't remember that he wore glasses."

"That was that skunk Abbott, doc. Now, you'd certainly have seen that much dough passin' hands, wouldn't you, doc?"

"Why, yes, I suppose I would. But my memory isn't any too clear about that fellow, warden."

"Now, doc, I've always been a square-shooter with you fellows, haven't I? Haven't I always gone to the front every time you guys wanted anything here? Sure, I have. Well, now, all I want you to say is nothing but the honest-to-God truth—just that you didn't see no money change hands. That's fair, ain't it?"

"Well," J.B. said hesitantly, "I'm afraid I won't be of much use to you, McGarigle, but I can be truthful and say that. Is any other doctor testifying?"

"Sure. Plenty of 'em. Old man Fenger's going on as a character witness, and there'll be others. But you'll do me the most good."

At the trial Abbott, the agent of the successful bidder for the coal contract, testified that McGarigle had instructed him to bring 11,000 dollars in cash to him at his office in the County Hospital. This, he said, he did; and within two days thereafter the contract was awarded to his company. He testified that the money was in bills and was wrapped in a newspaper which McGarigle took from him and put in a fireproof safe.

In their opening statement to the jury the warden's attorneys

categorically denied the transaction and stated that at the time the money was said to have been passed other individuals were in the office who would refute Abbott's testimony. Furthermore—and what a naïve thing it was to say—the attorneys said the defendant could not have put it in the safe because he had not had the combination for years.

And, having set their line of defence, the attorneys called Dr John B. Murphy to the witness-box. J.B. approached the box, this time sadly lacking in that self-confidence, in that sureness, which had characterized his appearance at the anarchists' trial. Reluctantly, his testimony marked by many indecisions, he testified he had been in the warden's office at the hospital on a certain day when a man, whom he subsequently learned was Abbott, came in and had a short conversation with McGarigle. McGarigle's attorneys prised out of him the admission that he had been standing within a few feet of the two men and that if there had been any transfer of a package between them at the time he probably would have seen it. He saw none. He testified that Abbott remained in the office but a few minutes, that McGarigle had said to him, "All right, I'll do what I can for you," after which the coal agent went away. Thereafter McGarigle returned to his desk and resumed his conversation with the witness. Had he gone near the safe? J.B. testified he had not.

On cross-examination J.B. could not remember on what day of the month this meeting had taken place.

"Had you ever seen Abbott before that day, doctor?"

"I had not."

"Then you didn't know it was Abbott?"

"I did not."

"As a matter of fact, doctor, wasn't it the defendant, McGarigle, who later told you that the man who interrupted your conversation was Abbott?"

"Well, yes; it was."

Trying to be strictly truthful and at the same time to help McGarigle, J.B. made a sorry show of himself. In aiding a man of whose political malpractices he had not informed himself he succeeded in tarring himself with the brush of crookedness and, furthermore, in letting McGarigle down with a weak performance. Those doctors who had attacked Murphy for his appearance at the Haymarket bombing trial now pointed gleefully to this, his most recent public appearance. They saw in this political mud-slinging proof that he, Murphy, had used unfair tactics in so high-handedly taking charge of the wounded policemen. They argued that, being hand in glove with thieves, he would not blush at stealing a few patients. Stories began to fly to the effect that he was in league with the notorious Mike McDonald in a scheme to supply the county institutions with surgical supplies at a huge profit to themselves. Now his enemies said that he had taken care of the policemen because the first rule of grafters was to keep the police pacified.

You may say, "Where there's so much smoke there must be some fire." And the only answer to that is that there never has been any proof that he was culpable. He might have been used by these grafters to their and his advantage without being aware of such participation, or he may have received handsome fees from it without earning them, which, of course, would have aroused his suspicions. But if he were consciously a party to the shady transactions there is no evidence of it. All the evidence points to his being misjudged through no fault of his own.

To prove that Murphy had a genius for raising the fumes of scandal about himself let us look at the other doctor who testified in behalf of McGarigle—Christian Fenger. Was he condemned by his fellows? Not at all. This may be explained in any way that one sees fit—that Fenger's reputation was established while Murphy was seen as an upstart. But the

truth is that Murphy simply inspired envy and dislike in many of his contemporaries. Even when his reputation was established he was the object of poisoned tongues and suspicious eyes.

It is doubtful if J.B.'s reputation would have fared any better if McGarigle had been acquitted, which was not the case. The testimony of the doctors failed to save the warden, and he was convicted and sentenced to three years in the penitentiary. It was hardly to be hoped, with his political connexions, that he would serve out his sentence and thus repay society in a measure for his crime. And, in fact, he was not defeated so easily. Incarcerated in the city jail preparatory to being sent to the penitentiary, the handsome warden pleaded tearfully with the sheriff, a slow-witted Viking, Canute Mason, for one last visit to his wife and children. The sheriff acceded and accompanied the swindler to the latter's home. After being greeted tearfully by his wife and bidding his children affectionate farewells, McGarigle asked to be excused for a moment to go into his bedroom. As soon as the door was closed he escaped through a window into a closed carriage. Lake Michigan was but a short distance away, and there a boat awaited him. Soon he was well out of sight and reach on his way to a Canadian port. Within two years the Irishman longed for Chicago, and a new, receptive State attorney agreed to his return if he would plead guilty and pay a 1000-dollar fine. It is doubtful whether McGarigle, because he was a politician and politicians are expected to be dishonest, suffered as much because of that trial as did J.B.

CHAPTER X

THE wounds of calumny and scandal were slow to heal. Nettie, anxious about her husband, prescribed hard work. By this time he had realized his dream—a laboratory in the barn; and when patients were few he spent much time there operating and experimenting. His only reading, besides newspapers, was medical books and magazines. They had a telephone, and he was on call for twenty-two hours a day, reserving two hours, from two to four o'clock in the afternoon, for consultations in his office. He had rented an office of his own at No. 93 Adams Street. But when he had broken away from Dr Lee they had remained the staunchest of friends. Meanwhile Nettie had given birth to their second child, Jeannette, named of course after her mother. This child, filling the emptiness left by the death of Harold, brought them much happiness, and to their joy another baby was expected. They wanted another boy, and J.B.'s restless mind toyed with the age-old problem of determining the sex of the foetus.

Needless to say, the home life of the Murphys, if that term describes social intercourse, was nil. They rarely went out during the evening. The hours they spent together even were very few. He managed to be with her at meals and sometimes slept an entire night with her. The result was that when Nettie felt need of his company she would go to the laboratory and help him with his experiments. At first an interested and intelligent spectator, Nettie soon became a valuable assistant. The operations were mostly on dogs, and at first must have been extremely upsetting to her, but her absorption in her husband and his work transcended all other

emotions. She believed that her husband was a genius who had but to work and wait for recognition. Without a moment of regret she had put away the life of gaiety that she might have led, the pleasures and excitements of the social set into which she had been born. With a faith and devotion strangely like that of Ann Murphy, she had no thought beyond furthering her husband's career.

In these laboratory experiments, and even in his theories, J.B. was shooting in the dark. With nothing very definite to work on he was merely fishing for what he could find. There was so much he did not know that it was difficult to know where to begin. Primarily he was a surgeon, and primarily he was interested in what went on inside people. Now there would appear to be nothing that would interest him in a patient with a broken leg such as young Monahan, a labourer, who had been in the doctor's ward for several days. And yet it was Monahan and none other who started Murphy on a trail that would bring him undying fame.

It was the morning of March 2, 1889. In making his rounds J.B. stopped beside Monahan's cot. "How are you this morning, my boy?"

"Glory be, doctor, right now I don't feel very good. I've got such a pain in my belly."

The intern said, "He started complaining of a belly-ache right after breakfast, Dr Murphy. He's getting worse. I can't imagine what he ate that could have caused it."

Sensing something significant, J.B. was all attention now. "Where's the pain, boy?" he asked, sitting down beside the bed.

"It started up here in the pit of my stomach and now it's all over, and I wish I could vomit."

The doctor pulled down the covers, raised the patient's gown, and with his hand flat on the abdomen and his fingers lightly feeling their way he palpated the entire abdominal wall.

The youth's whole mid-section was sensitive to deep pressure everywhere, but particularly so between the navel and the crest of the ilium; just a slight muscle rigidity there which he could not feel elsewhere. Murphy looked up at the intern. "What's his temperature, doctor?" he asked.

"Just a hundred a few minutes ago, sir."

"Keep him quiet. We'll see him again as soon as we finish our rounds." There was a slight excitement in his voice. He believed he had discovered a beginning case of perityphlitis and that the infection and suppuration were in the appendix. He had obtained that last from reading Reginald Fitz's article. If Fitz were right he could avoid the phlegmon and induration that usually went with such cases by taking out the appendix. Also he had recently read a paper by Krufft which had convinced him that these patients must be operated upon early.

When J.B. returned two hours later his patient was vomiting. His temperature had risen to 101 degrees. The lightest touch over the lower right side of the abdomen caused Monahan to wince. "My boy," the doctor said, "you must be operated upon right away. Your appendix must come out. If we operate now you'll be well in a short time. If we wait you may die."

The sick Monahan nodded his head weakly. Thus an obscure labourer became the first patient to be operated upon before a large, hard mass of pus had formed and on the theory that the primary lesion was an infection of the appendix. How many lives have been saved by this diagnosis and operation is impossible to say, but it has become one of the most common operations practised in surgery.

Dr Lee came into the operating-room as J.B. was closing the wound. J.B. was excited at seeing him. "Look in that pan, doctor," he said, his voice high and shrill, "and you'll see a typical red appendix with pus in it! No phlegmon. He had symptoms only eight hours. Fitz is right; there isn't a

doubt about that. We've got to get these people early. What a satisfaction to know this boy will get well quickly!"

Lee and J.B. had read, re-read, and discussed Reginald Fitz's article. In it he showed that the clinical picture in 290 cases of typhlitis and perityphlitis closely resembled that of 257 cases of perforation of the appendix, and clearly pointed out that the appendix was responsible for most abscesses occurring in the right lower portion of the abdomen. He made it clear that the variations in the clinical symptoms depended to a great extent on the anatomic variations of the appendix. He called attention to inflammation of the appendix as the primary lesion, and that to which treatment was to be directly applied. Both Lee and Murphy were impressed with the powerful manner in which Fitz urged early surgical intervention. They had the highest praise for his judgment, but to his colleagues Fitz was the pathologist rather than the clinician, and they associated him with the autopsy table rather than with the bedside. On one occasion he was called in consultation to the sick bed of a surgical friend who had been ill for several days with appendicitis. The patient in his depressed mental state, so the story goes, thought he was dead and that Fitz had come to perform the post-mortem examination.

Of the disease Fitz wrote:

The profession should be mindful that, for all practical purposes, typhlitis, perityphlitis, perityphlitic tumour, and perityphlitic abscess mean inflammation of the vermiform appendix; that the chief danger of this affection is perforation; that perforation in the great majority of cases produces a circumscribed, suppurative peritonitis, tending to become generalized; that in the light of our present knowledge the surgical treatment of this lesion offers the best chances for the life and future health of the patient, and that the progress of the disease needs to be watched with knife in hand.

Lee and J.B. agreed to find out all they could about diseases

of the appendix in old medical literature. In the evenings after office hours they compared notes. With great pride Lee told how Heister had recorded that, in November 1711, while he was dissecting the body of a criminal at Altdorf, he found the "vermiform appendix of the cæcum preternaturally black, adhering closer to the peritoneum as usual."

"Listen to this," Lee said to Murphy.

"As I was about to separate it by gently pulling it asunder the membranes of this process broke, notwithstanding the body was quite fresh, and discharged two or three spoonfuls of matter. This instance may stand as a proof of the possibility of inflammation arising, and abscess forming, in the appendicular as well as in other parts of the body, which I have not observed to be much noticed by other writers; and when, in practice, we meet with a burning and pain where this part is situated we ought to give attention to it. It is probable that this person might have had some pain in this part; but of this I could get no information."

"But," Dr Lee went on, "I found something about it in the library to-day that goes back even farther than that. A body found in Egypt, belonging to the Byzantine period, showed all the evidences of adhesions about an old inflammation of the appendix. It's strange that Vesalius said nothing about the appendix. The anatomists and physiologists of his day located the seat of the soul in every other organ of the body."

Although it is difficult to believe to-day, for generations the appendix baffled scientific imagination. While evacuation of pus from the right lower quadrant dates back to the beginning of the Christian era, what may be termed the deliberate operative treatment of the appendix is linked with the Listerian era of antiseptic surgery. So far as surgery of the appendix in America is concerned, Murphy's operation upon young Monahan blazed the trail.

Now J.B. had found a field which fascinated him. Avidly

he tore into it with all that enthusiasm and vitality which possessed him; always with a wary eye for symptoms which might indicate inflammation of the vermiform appendix. Searching through surgical literature, Lee and Murphy discovered that many keen clinicians had observed and studied cases of appendicitis, especially during the latter part of the eighteenth and the beginning of the nineteenth centuries. Their voluminous records, however, proved nigh useless because of an incorrect nomenclature, for one thing; their inability to interpret the relationship between the clinical symptoms and the underlying pathologic processes, for another. Operations performed in those days were last resorts—after a phlegmon had developed in the abdominal wall and after the appendix had ruptured. In contrast, then, Lee and Murphy became convinced that they should follow Fitz's advice and make the diagnosis of an infection of the appendix before its symptoms cried, "Too late!"

Hot on the trail of what might prove a great boon to the human race, J.B. carried the subject with him wherever he went, to whatever he did. He ate, slept, and hurried through the days with that little wormlike sac on his mind. At breakfast, lunch, and dinner Nettie was the crucible into which he poured his ideas.

"The doctor first called to see a patient with pain in the abdomen must be taught to think of appendicitis; that's the only way we can get these cases early. Why, just to-day I saw two patients with the disease, made the diagnosis, and operated upon them in their homes. Right on the kitchen table, Nettie. They simply couldn't afford to go to the hospital."

Nettie laughed at what she was thinking and said it. "How on earth can you educate doctors?" she said. "You can't buy an advertisement in a newspaper."

"You have to tell them; you have to convince them; you must make them see it as you do."

"Then why don't you give a paper on it at the Medical Society and tell them how to make the diagnosis and how to treat the patient? Maybe they'll listen. Maybe they'll believe you, darling."

The idea intrigued him. He began working on it at once. By November, after six months' work on the problem, he was ready to present his observations before the Chicago Medical Society. Lee arranged for the paper to be presented. It was to be J.B.'s first appearance before that body. So anxious was he to make a good impression that he rehearsed his speech many times so that he could deliver it without referring to his notes. Nettie afterwards told that he rehearsed in his night-shirt, parading up and down their bedroom.

"First there is pain in the abdomen, sudden and severe, followed by nausea or vomiting, most commonly between three and four hours after the onset of pain. Then there comes a generalized abdominal sensitiveness most marked on the right side and more particularly over the appendix; next there is an elevation of temperature, beginning from two to twenty-four hours after the onset of pain."

What he had to say seemed the right and fitting thing to Nettie, but she had to stop the rehearsals because J.B.'s voice, rising as he became eloquent, wakened Cecile, the new baby.

"Then I'm going to say: These symptoms occur almost without exception in the above order; and when that order varies I always question the diagnosis. If nausea and vomiting or temperature precede the pain I feel certain the case is not one of appendicitis."

II

In spite of the way in which he tried to keep Schmidt and his teachings in his mind's eye, J.B. was more nervous than he had ever been before that large group of august doctors, most of them his elders.

"Gentlemen," he said, after stating his case, "the responsibility lies with the first doctor called in to see these patients."

He was having difficulty in controlling his voice. As he progressed he grew more and more excited, his voice became high, shrill, and rasping. "I make no apologies for speaking of the obligations of the general practitioner in appendicitis. In a large number of the early cases I was the first doctor called, and after a few experiences, which were so forceful in their instruction, it required no courage on my part to insist on the operation. Many of the first hundred operations were performed on the kitchen table with the ordinary aseptic conditions that could be secured in a twenty-minute or half-hour preparation. In a large number of them there was no trained nurse, no cumbersome, excessive surgical paraphernalia; the loss of time which these entailed was avoided to hasten the liberation of the pus or the removal of the appendix, as the case might be. Appendicitis has come and it has come to stay, and the responsibility of its immediate recognition is on the general practitioner. I would feel personally responsible for the death of a patient suffering from a typical attack of acute appendicitis if I had the case from the beginning and was called early. It is our conviction that before many years every case of perityphlitis when diagnosed will be operated upon immediately, the appendix ligated, if possible, and amputated. This operation gives the only guarantee that a patient can have of safety from the impending danger of the disease and security against its return."

Polite hand-clapping followed these closing remarks. There could be no doubt that the young man had presented his ideas with vigour and enthusiasm. If he needed a little more practice in public speaking, then that was another matter. The open discussion which followed Murphy's assertions was studiously polite, but very painful to the speaker. There were a number of practitioners present who did not hesitate

to say that many of their cases recovered without operation; that many of them were catarrhal inflammatory processes which did not form pus. Others there were who advocated the use of opium, calomel, and castor oil. The eminent Dr Parkes, dignified Professor of Surgery at Rush, dwelt at some length on the fact that he was often unable to decide for or against operation because some patients not operated upon had recovered quite as well as those treated surgically. Finally, one seasoned practitioner bluntly asked, "Where do you get all these appendicitis cases?" with a look and an inflection which did not indicate the utmost confidence in Murphy's diagnostic ability, his ethics, or his word.

From that moment J.B. was determined to prove to those sceptics and to the world that Fitz, Lee, and he were right, that early operative treatment was the way to save the lives of those suffering with appendicitis. In that, his first paper, he had expressed regret that the problem could not be investigated satisfactorily by experiments on animals. Proof, therefore, could come only through collecting data on a large number of cases. He determined to collect those data. The scepticism of his associates whetted his anger, roused in him an overwhelming desire to make them agree with him. Perfectly certain that what he said of appendicitis was true, he lost no opportunity to gain the ear of practitioners separately; and he deluged his students at Rush with data and propaganda. "Gentlemen, if the pain is relieved suddenly within the first thirty-six hours beware of gangrene and a possible fatal result." He accepted every invitation to speak at medical meetings, and wherever he went he made strong arguments against conservatism in treating this disease. The appendicitis question became a bitter battle from one end of the country to the other, centring in the Middle West, where feeling ran highest, where expressions of opinion were couched in stronger language. There were times when Murphy seemed drowned

in the bedlam of objections, but on he went. Within four years he had collected over two hundred and fifty cases, and fourteen years after his first appearance before the Chicago Medical Society he was back again. This time he spoke authoritatively, with two thousand cases of appendicitis to his credit, and there was not a man in the crowded hall to dispute him. Thus he overwhelmed the opposition by proved cases. Their only resort now was to declare weakly that, "Murphy operates on everything and pads his figures."

He hit harder now that he had the intervening years of experience behind him. Shielded by confidence, his dogmatism brooked no argument. He had set out to make the public and the profession 'appendicitis conscious.' How completely he accomplished this the world knows. By his own statement he taught the profession how to diagnose and treat appendicitis. He was only disappointed that he could not have taught them all to operate, for some of them, according to him, did it so badly. But the fight to convince the medical profession, which, as a body, always has preferred to theorize and dream rather than analyse, investigate, and accept facts, was a long one. How bitter was the fight, let his words tell:

There is no procedure in surgery where the battle was so fierce and so continuous and where the statements of the uninformed were so personal, so galling, and so unjust as in the contest for and against early operation in acute infective appendicitis. Looking backward, one can scarcely comprehend how a so-called intelligent profession was so slow in accepting the overwhelming force of numbers and facts, which could not be altered by theory or speculation. Practitioners whose cases recovered from the attack insisted that they were catarrhal inflammatory processes and recovered without the formation of pus, notwithstanding the evidence produced by every operator of that time that pus was present in all the acute infective cases operated on in the early stages—now a generally recognized fact.

SURGEON EXTRAORDINARY

Every one recalls how reluctantly the advocate of the soothing death lullaby of the opium treatment vacated his position, and how equally persistent and belligerent was the advocate of the death-groaning calomel and castor-oil participant; the still unconquered, nine-lived procrastinator has not yet capitulated—each and every one of these standing out against the most convincing presentation of pathological phenomena.

J.B.'s practice, family, and staff had grown. By 1890 he had two assistants, Witwer and Hartmann. He had taught them at Rush, had weaned them at the hospital; at work they were as much like him as copies can be. These two young doctors operated with him in hospitals and on kitchen tables during the day, met him at his home in the evenings; there they compiled data from the case histories, criticized the composition of their papers. Nettie was always present. Despite her household, which was perfectly managed, despite the care of her two baby girls, she made time to watch her husband's work and lose no thread of the progress he was making.

About this time, though, she became worried about his health. It became obvious that J.B. was beginning to show the effects of a constant physical and mental strain. As soon as she saw it she acted. She told him that he must do something about the cough that he had developed. When J.B. tried to put her off she mentioned the fact that he was losing weight and that he had night sweats. Refusing to accept fatigue as a reason, she pointed with logic to the fact that her husband's brothers and sister had died of consumption.

J.B. was gallant in his attempt to keep his wife from worry, but he was secretly alarmed. The spectre of tuberculosis rose before him. He remembered Vienna and his scare there. Spurred on by Nettie, he summoned enough courage to consult a medical colleague; this doctor confirmed his own worst fears. Pulmonary tuberculosis! What was to be done?

How could he leave a surgical practice that was growing rapidly? And if he left it how could he expect to hold it? And his family—what of his wife and children?

Nettie, the capable, the practical, the shrewd, came forth with good, sensible advice. "We won't be satisfied with one doctor's opinion. You must get others. Whose opinions do you value?"

"Well, there's Loomis in New York and Da Costa in Philadelphia. But how can I get away?"

"My darling, the boys can look after your patients, and we can simply say that you're off on a professional trip. You must go without delay."

He went. Loomis examined him carefully, disagreed with the diagnosis, and confidently assured him he had not got tuberculosis. One for and one against. Now he was in a quandary. On he went to Philadelphia. Da Costa agreed with the doctor in Chicago, and in no uncertain terms advised him to go to Florida and live as long as he could in comfort, meaning thereby that his days were numbered. Murphy returned to his wife worried and harassed, but Nettie was capable of meeting this situation too.

When J.B. went to New York he had left John Hildreth, alderman of the Seventh Ward and a close friend, convalescing from pneumonia. Nettie was aware that Hildreth had frequently invited J.B. on fishing-trips, but the doctor had always been too busy to go. She also recognized him as a limber-tongued, witty Irishman, whose good nature would be just the right stimulus for her husband. J.B. made his usual daily call on Hildreth, little realizing that his wife had been there before him and had set the trap.

Hildreth said, "Doctor, you said one day before going to New York that I should consider going to Colorado for a while, to rest and get my strength back."

"That's right, John, I did—and I still think so. Colorado

Springs would be a fine place for you. The air will do your lungs a world of good."

"Well, now, J.B., I can't go alone, and Mary can't leave the kids. I don't know that I'd feel safe going there without a doctor."

"Oh, forget that, John; I can put you in the hands of any one of a number of good men who'll look after you."

"How about you coming along with me? Do you good to have a rest." Seeing the indecision on Murphy's face he pressed on. "Aw, come on, doc. We can do a little trout fishing."

Murphy said he would think it over, and that evening at dinner, finding him quiet and preoccupied, his wife asked, "What's the matter, dear?" guessing the truth.

"Nothing's wrong," he said. "I'm turning over a suggestion John Hildreth made about my going with him to Colorado Springs for a rest."

"Why, J.B.—that's a marvellous idea! You need the rest."

"I need more than rest, Nettie. My lungs need that air. But what worries me is what will you and the children do? And my work?"

"We'll get along beautifully, and so will your work. Your patients won't leave you, darling. They'll be on your doorstep waiting for you to get back. I'll feel so happy if you'll go with John. He'll keep you from being lonely, and you'll come back healthy and full of vigour."

CHAPTER XI

As Hildreth said of the trip, "We started for Colorado Springs the latter part of June with a barrel of rock and rye. Doctor ate the rock and I drank the rye."

When they arrived they registered at an hotel and placed themselves under the care of a doctor well known to Murphy. From the first J.B. was unhappy in spite of Hildreth's cheer and wit; he was utterly miserable without his work, for one thing, and terribly lonesome for his family. Give an ambitious, active man a lull, and he will chafe under it. J.B. felt that his life was slipping away from him and that, instead of doing all the things he felt he must do before he died, he was sitting in a rocking-chair listening to idle chatter. One letter written during this period to his elder daughter has been preserved. It reflects his loneliness.

MY DEAR JEANNETTE,

It is a long time since Papa had a letter from you. I guess you have forgotten your Papa entirely; you don't write to him any more.

Have Father Mackin tell you where he left your Papa. Ask him when your Papa is coming home, and tell him what you want me to bring you. I am sorry your pony ran away, but am pleased to know the cart is not broken. Papa just got a letter from Mama, but no letter from his Jeannette.

Kiss all your cousins, Aunties, Grandma, Father Mackin, for me. Give Mama a great big kiss and love from Papa. You are a very good girl I know, and here are lots of kisses for you.

From your loving

PAPA

But there he sat, twiddling his thumbs, for several weeks, while his wife, who longed for him to come home, kept urging him to stay as long as he liked; kept assuring him his practice was going along beautifully. She permitted nothing but the most optimistic reports to go to him, reassured him about money, repeating that the main issue was for him to regain his health. He was making every effort to do so by absorbing the sunshine and fresh air, by eating well and regularly, and by sleeping nine and ten hours a night. But one day to his surprise his doctor—Macalester—informed him that he was not progressing satisfactorily. "I think you need an even drier climate, doctor," he said. "I'd advise you to go to New Mexico. Ever been there?"

Murphy shook his head. "No," he said.

"Las Vegas is the biggest city in the territory. It's full of interesting people. It's got a wild and woolly background that'll keep you busy. Six miles out is a hot spring—fine resort. I think the climate there would suit you better."

"What kind of accommodation has it? I've got to be comfortable."

And J.B.'s adviser launched into a long-winded laudation of Las Vegas, describing the new Montezuma Hotel, built and operated by the Santa Fé Railway. "That's no bowl-and-pitcher hotel, let me tell you. It cost over 600,000 dollars to build. And what a view! It's high up on a hill and surrounded by a pine forest. You look down into a beautiful thousand-acre park full of buffalo, bear, and deer. At night the mountains are silhouetted against blue and gold; and they say there are more stars in the sky above Las Vegas than there are ants on earth—and they mean red as well as black ants."

Murphy laughed, interested in spite of the speech. "Las Vegas should hire you, doctor, to ballyhoo for the town. But don't let your own chamber of commerce hear you talk this way."

"You've never heard me get started on the Springs, have you, Murphy?"

Leaving Hildreth to return alone to Chicago, J.B. entrained for Las Vegas, and found upon arrival that all the fabulous things the man had said about the place were true. The great hotel, one of the finest in the country, was crowded with visitors from all over the world. The streets were thronged with people in varied and colourful costumes, with the gay Mexican habiliments predominating. Indians, their jet-black hair in braids down their backs, their hips wrapped about with blankets, rode through the streets on fine-looking horses *sans* saddle or bridle, guiding their steeds with only short pieces of rope. Everywhere there were gambling-halls and saloons. The shadow of Billy the Kid still hung over the great square, and there were still occasional shootings to enliven the life of the town. There were no paved streets, but progress had brought electricity and a water-system.

J.B. was fascinated by everything he saw; by the adobe buildings, by the colour he saw everywhere, by the irresponsible spirit of the town. "You should see the Plaza," he wrote Nettie.

It is a walled-in square, into which, until recently, the wagon trains were driven. They would turn the animals loose inside, and to prevent their escape the last wagon to enter was set in the gate. There's quite a movement on foot to tear down the old windmill in the centre of the square because of its notorious history; it was such a convenient place from which to hang horse-thieves.

Intrigued by the place, and aware that he would remain for some time, he was anxious to lure his wife and children there. In letter after letter he described the town in glowing terms, warned Nettie that the Wild West was fading fast and that if she and the children wished to see it they had better pack up and join him. "I met a real old-timer to-day, my dear," he wrote.

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Charlie Liebschner, an old bull-whacker and mule-skinner on the Santa Fé trail. He knew Billy the Kid and has promised to introduce me to the bravest woman out here. She came from Ireland in '78 to marry her adventuresome Irishman. She got as far as St Louis, but there was nothing west of there except a trackless expanse of plain with uncharted mountains and hostile Indians. It seems she got herself an old army ambulance, six mules, and started out. After a horrible trip she got here with one mule, only to find her man dead.

That story broke Nettie down; she gave in. With her two children, Jeannette and Cecile, she set out to join her sweetheart and husband. There was great rejoicing when they arrived. J.B. had found a small cottage near the hotel, and the four of them moved into it and set up housekeeping. There followed the happiest days of his life—with strong, characterful Nettie and their babies idling beside him in the sunshine. He could almost feel himself getting well. Week followed week with the rapidity of all happiness. But that had an end too. It was J.B. who forced it. He came to Nettie, a letter in his hand. "Don't you think it's about time for us to go home?" he asked her. "Eight months is a long time to stay away from work."

"Isn't this rather sudden?" she asked. "Are you sure you're well enough?"

"I'm feeling so well I doubt the diagnosis."

She noticed the letter. "What's the news?" she asked.

"I've been offered a professorship of surgery at the College of Physicians and Surgeons."

She was breathless. "Why, J.B., how marvellous!"

He shook his head disparagingly. "I'm not so sure."

"But think of it! A professor of surgery at thirty-five!" So that was it! So that's why he suddenly wanted to go home. "You'll accept, of course?"

"That's what I've been thinking about. The college has

had a stormy time of it since it was opened ten years ago. I'm not convinced that there's room for another medical school in Chicago."

The College of Physicians and Surgeons had been organized the year J.B. completed his internship at Cook County Hospital. Its founders had been a group of young medical men, formerly junior members of the faculties of Rush and Chicago Medical College, who had become irritated by the slow process of promotion in these two institutions. The time had seemed opportune for the establishment of a new medical college in Chicago, which was growing rapidly; and the ideal location, they all agreed, was directly across the street from the County Hospital with its great clinical teaching material. It was a tough row for those young men to hoe, though; and for the first ten years of the school's life the difficulties of administration were endless. Perforce, positions on the faculty were limited to those who owned stock in the school. If a stockholder wished to teach surgery he bought stock covering that particular subject in the curriculum. It was a reversion to the old proprietary medical school, and some of the founders objected. Charles W. Earle objected so strenuously, so persistently, and so capably that he was ousted. It was not until a deficit of 30,000 dollars brought about a crisis that William E. Quine, the Professor of Medicine, and D. A. K. Steele, a surgeon, finally effected a complete reorganization and Earle was reinstated. It was just after this that they wrote to Murphy and offered him a professorship of surgery. At the same time they engaged Byford to teach gynecology, Christopher to teach pediatrics, and Hektoen to teach pathology.

Wishing to know the situation, and also holding out an ear for advice, J.B. wrote to his old friend and teacher, Christian Fenger. Fenger influenced him to accept the position.

Nettie was jubilant. "It'll mean a new start, both physically and professionally," she said. "We'll forget all about this

scare of tuberculosis. I don't believe you ever had it, anyway." She was full of ideas. "We must move your office downtown to a more fashionable address. You can afford now to let your assistants make the house visits. We will——"

"Aren't we moving rather fast, my dear?"

"Not too fast for a fine surgeon—and you are a fine surgeon, J.B. They think so, or they wouldn't have invited you to join their faculty without buying stock." Music to his ears, wine to his dispirited ego.

They began packing.

II

During those eight months while his hands had been idle the aggressive Murphy mind had been working overtime. He had asked himself, "What is the greatest difficulty to overcome in abdominal surgery?" That was his field; he should plough it.

The answer was not hard to find. All over the world doctors for years had been trying to solve the many perplexing problems which the gastro-intestinal tract presented. Removing a section of the intestine for the purpose of correcting a mechanical obstruction, or for any other reason, was practised rarely, and almost without exception unsuccessfully. The trouble was, how to reconnect successfully the two ends of the cut intestine? A method had to be found which would produce agglutination of the cut edges and at the same time prevent the formation of a scar which would contract the passage and form a partial or complete obstruction. Sutures had been discarded as dangerous. Applied imperfectly, they caused the bowel to become gangrenous at the line of suture; the catgut sutures were absorbed too rapidly and obstruction occurred; and with appalling frequency prolonged operations of this type produced fatal shock. Thus a patient had little chance of recovering if anything happened to his intestines,

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but his chances were better if he stayed away from the operating-table.

Confronted with this problem of keeping the intestinal passage free following anastomosis, J.B. went back through medical history to learn what had been tried and with what success. He learned that in early years of experimenting with the problem surgeons had inserted a hollow cylinder of elder into the lumen of the bowel, and had connected the two ends in this fashion. Later the dried windpipe of a goose or some larger animal was tried, but all such procedures had proved failures. J.B. learned that Denans, a surgeon of Marseilles, in 1826 had devised rings of silver or zinc, over one of which he inverted each end of the severed bowel. He then connected these rings by a band of metal which could be made smaller by pressure and thus be made to exert the necessary peripheral pressure to hold the rings in union. The outer coat of the intestinal walls became adherent, and the inverted margins sloughed away through pressure, so that the rings were released into the intestinal canal and were passed downward. Bone plates and discs were substituted for the rings of silver, and other modifications were devised, but with little improvement in results.

As he always did, J.B. discussed the problem with his wife. "That Frenchman had an idea there," he said. "It fell just short of success. I think I can improve on it."

III

Installed in new offices in the expensive Venetian Building, Murphy went back to work with characteristic vigour and concentration. Notwithstanding his teaching activities at the College of Physicians and Surgeons as Professor of Surgery, notwithstanding his practice or his work at the Cook County Hospital, J.B. found time at night, in his laboratory in the

barn, to work on the intestinal anastomosis problem. They had arrived home in March. One day in June of 1892 J.B. tore into the house full of great excitement. "Nettie!" he called, as he rushed up the stairs three at a time. "Nettie!" And when she came into the hallway he caught her in a wild embrace and swung her off her feet. "I've got it at last! I've got it! I've got it!"

"You've got what?"

"I've got something that'll work! Something that'll revolutionize intestinal surgery! Look!" And so saying, he released her, and held out in his hand a brass ball.

She took it from him curiously. She looked at the tiny metal contrivance. "It looks like a sleigh-bell."

"Sleigh-bell!" he laughed, and took it from her. "Watch," he said, pretending to be a magician. "Nothing up this sleeve and nothing up this. Here you see a little metal ball—nothing, really. And yet, my dear," he said, "you are looking upon one of the greatest inventions ever devised by the mind of man."

He separated the ball into two pieces, picked up the hem of her skirt, folded it, thrust the stem of one piece through the cloth, turned it over, and snapped on the other.

"You see!" he said triumphantly. "The two ends of a cut intestine can be joined together with this button in half a minute—a complete anastomosis!"

"Would you dare place this brass ball in a sick man's intestine when everybody makes such a fuss over a child swallowing a penny? Why, it's an inch in diameter."

"It's got to be. When the intestine grows together round this button the button will become free and pass from the bowel."

His wife looked at him. "Do you really think so?"

"I know it, Nettie! I'll show you. We'll try it out on one of the dogs."

The button consisted of two small circular bowls. Into a

circular opening in the bottom of one bowl was 'sweated' a cylinder with female screw-thread on its entire inner surface. This cylinder extended perpendicularly from the bottom of the bowl. There was an opening in the male bowl in which was 'sweated' a similar and smaller cylinder of a size to slip easily into the female cylinder. Two brass springs were soldered on either side of the inner surface of the lower end of the male cylinder, which extended almost to the top, where small points protruded through openings in the cylinder. These points were designed to catch the screw-thread when the male cylinder was pressed into the female cylinder, and thus the bowls were held together at any desired point. A small brass ring, with a thin but not a cutting edge, to which was attached a wire spring, was placed in the male bowl and retained in position, projecting one-eighth of an inch above the edge of the bowl. This was for the purpose of keeping up continuous pressure until the entire tissue between the edges of the bowls was cut off. Murphy had therefore designed two hemispherical bodies held together by invaginating cylinders. These hemispheres of the button were inserted in slits or ends of the particular organ to be operated upon. A running suture was placed round the opening in the bowel, so that when it was tied it drew the cut edges within the clasp of the brass bowl. A similar running suture was applied to the other portion of the bowel to be anastomosed and the button was pressed together. The pressure atrophy at the edge of the bowl was produced by the brass ring supported by the wire spring. The opening left after the button had liberated itself was exactly the size of the button used.

The next morning J.B., Witwer, Hartmann, and Nettie gathered in the loft of the barn to try the button. The table, floor, and lamps hanging from the rafters had been scrubbed spick and span, the whitewashed walls and ceiling shone with a fresh coat. Nettie was to give the anæsthetic and record the

elapsed time from the first incision to the closure of the wound. Speed in performing an anastomosis was most important.

Quickly J.B. incised the abdominal wall and exposed the dog's gall-bladder. Theoretically the patient had an obstruction to the flow of bile through the normal passage, the common duct, into the first portion of the intestine. His task, as he had laid it out for himself, was to anastomose the gall-bladder directly to the first part of the small intestine. With Hartmann holding the retractors and Witwer handing him the instruments, J.B. with deft fingers introduced the two halves of the button, joined them, and speedily closed the wound. With eyes shining he turned to Nettie. "What's the time?"

"Eighteen minutes!"

"That's better than I'd thought we could do it."

"It's marvellous!"

"It'll be easier in man because the structures are larger."

"Let's pray it works," Nettie said.

"Our patient needs good nursing. He must get well!"

No patient ever had better care. Mrs Murphy nursed that dog as she might have one of her own children. Day after day they watched the animal. He became so fond of Nettie that he followed her about the laboratory, perfectly happy at having been adopted into the Murphy family. He gained in weight after the first few days. Their hopes rose. On the eighteenth day after the operation the button was expelled. In triumph Nettie showed it to J.B. when he came home. They embraced, and for a long time stood thus without saying a word. Each realized what this meant.

Six days later, his confidence in the method having been established, J.B. performed a similar operation upon a patient at the County Hospital. Nettie was waiting at home to hear the news. The operation had required but eleven minutes,

while in the past such an operation had consumed hours, even in the hands of a skilled surgeon. He must get data from more experiments, from more operations; he must get other surgeons interested. Triumphant, he rushed home. "If I can show the profession that it is practical in any competent surgeon's hands our position will be stronger."

Thus, working all the time he was not eating or sleeping, from June until December he operated upon everything he could get his hands on; experimented with the use of the button in joining the intestine end-to-end and end-to-side, and in short-circuiting the stomach to a lower portion of the intestine. With twenty-five animals he proved that anastomosis of portions of the gastro-intestinal tract could be performed quickly, accurately, and safely. In his efforts to interest other doctors he wrote to his old preceptor, Dr Reilly. The old doctor invited him to come to Appleton and demonstrate his method. Accordingly J.B. journeyed to his home-town that September and performed an end-to-end approximation of the intestine upon a dog. His mother cooked him a chicken dinner with her own hands; he saw and talked to several old friends. It was with great pride that Dr Reilly—an old man now—reported to "Johnny" that in examining the dog two weeks after the operation he found the union perfect, the lumen of the bowel normal in size and uncontracted by scar tissue.

Murphy reported upon the results of his animal experiments and operations in the December 1892 issue of *The Medical Record*, under the title—"Cholecysto-intestinal, Gastro-intestinal, Entero-intestinal Anastomosis and Approximation without Sutures." He stressed several pertinent facts: (1) that the button differed from other methods in that it retained its position automatically; (2) that it was entirely independent of sutures; (3) that perfect apposition of the surfaces was ensured without the danger of displacement; (4) that a linear scar was produced which ensured the minimum of contraction; (5) that

the extreme simplicity of technique made it a safe instrument in the hands of every practitioner regardless of his dexterity as a surgeon.

That there may be no mistaking Murphy's contribution it should be understood that, until he reported on the use of the button, only eleven cases were on record in which an attempt had been made to join the gall-bladder and intestine for the purpose of relieving obstruction; and only forty-seven successful operations had been reported for complete removal of the gall-bladder—an operation which to-day is commonplace. Thus a whole field of surgery was cleared by Murphy, and throughout the world interest in the surgery of the bile-tracts and intestines was aroused.

The success of Murphy's operations in these difficult cases, all of which were regarded by the profession as hopeless, ran throughout the surgical world. His reputation was spreading like an epidemic; and as his fame seeped into the newspapers, into hospitals and homes, his practice grew by leaps and bounds. If he had worked hard before, lashed on by his ambition, now there was not a minute of leisure in his life. Days and nights were hectic hours strung on an endless wire. It was all that Hartmann, Witwer, and Nettie could do to keep abreast. Nettie said, "You can't keep this up"; and he said, "I've got to work now while I have the world rolling my way; I've got to work now. After a while, when we're sitting on top of it, we'll calm down and take a vacation." "Promise me," she said. He promised and smiled. She was always begging him to take holidays, to ease up. But the truth is that he was thriving on the work. The excitement, the drama, the limelight, thrilled him.

IV

In the midst of all this fanfare the administrative board of St Joseph's Hospital invited him to join its staff as Chief of

the Surgical Staff, certainly a signal honour for a surgeon of thirty-five.

"You'll take it, J.B.?"

"I don't know, Nettie. What do you think I should do?" As ever he was leaning on her judgment.

She advised him to accept, and he said he would. St Joseph's was a Catholic institution, and many of his patients, especially the poorer ones, were Irish Catholics. He had always been associated with the Cook County Hospital, a charitable institution; and Nettie thought it would be better if he had a more prosperous hospital address. He made preparations to transfer his surgical work to the Catholic hospital.

Suddenly, and without even consulting Murphy, it was announced that Nicholas Senn, an older, more experienced surgeon who had been his senior at Rush, had been appointed Chief of the Surgical Staff at St Joseph's. Needless to say, Murphy's disappointment was keen. In a way Senn was his rival. This had come about through Senn's disparaging remarks about the Murphy button.

His old friend Lee advised him to have nothing to with St Joseph's. "That was a low trick," the older man said. "Any hospital the affairs of which are administered so unfairly is not worthy of your work."

"Just pretend it is nothing," was Nettie's advice. "Anyway, it's their loss, not yours."

But J.B. had learned a few things in thirty-five years for himself. He knew how to rise above such a situation. "I'm going on to St Joseph's just as if nothing had happened," he said. "As long as I've made arrangements to go there I'm going. It's a good hospital and has excellent facilities. That's what I want after all—not honours. I'll appear there and receive the news personally from the superintendent, offer my congratulations, and ask what arrangements have been made for me and my patients." Hadn't his mother's silver rule

been, "Kill them with kindness"? The one thing that irked J.B. was that he had been told the hospital chose Senn over him as being a "more competent" man. "I can't let that statement go unchallenged," he said, setting his bearded jaws.

He was his most charming self the day he appeared at St Joseph's to take up his work. It was not with words that he was going to get his revenge. He listened to the superintendent's speech with deferential politeness, told him to think no more about it, and then set about showing every one even remotely connected with the hospital, including Dr Nicholas Senn, that he was the greater man in more ways than one.

Within a short time Murphy had more patients in the hospital than any other three men on the staff. He made his influence felt in every department, but always without saying much. With a quiet, even smiling, purposefulness he filled the wards and the rooms with patients. By the weight of this added financial support to the hospital he became the man behind the administration. His opinion always was consulted, if not officially, then at least personally by the contrite superintendent. What he wanted he got. What he did not like was abolished.

One of the things he wanted, for purposes which are apparent, was a system by which a record was kept of every surgeon's cases; and he wanted the results of this record to be published and presented to every member of the hospital's staff so that each man could compare his own operative mortality record with those of his fellows. Naturally the objectors were many and vehement. They complained that such a practice was unfair and unethical. But J.B. insisted that the system be adopted, and the superintendent thought it a fair and progressive step. It was put into effect. Murphy was getting his revenge.

CHAPTER XII

TRUAX, GREEN AND CO. were manufacturing Murphy buttons and selling them to surgeons all over the country. Even the conservative surgeons of the East were grudgingly admitting the method was worth looking into. There was more and more talk of it everywhere. It was beginning to look as if Murphy had contributed a contrivance of great value to humanity.

Nettie kept talking about a holiday until he finally consented to escape disagreeable March by going to Florida. But even then she had to purchase the tickets and pack the bags before he was convinced there was no way out and he would have to go. The wife of his assistant, Hartmann, was ill, and J.B. felt that he should not leave her to other hands; but Nettie made him admit that Mrs Hartmann was on her way to recovery and that Dr Lee, to say nothing of Hartmann himself, was quite competent to care for her. But from Jacksonville J.B. wrote advice to Hartmann:

So far, I have not heard from Mrs Hartmann, but as Dr Lee did not mention it in his telegram yesterday I feel quite certain she must be in good condition. You must have Mrs H. remain quiet until she has regained her former good condition. I am working on a paper to be given before the A.M.A. It must be just right. We have been having a very pleasant time so far, but have not gone fishing yet.

He found time to worry about the prospects of Witwer, who had left him to go into practice for himself. J.B. had arranged before he left for Witwer to take over medical work for a small industrial concern, but Witwer had not found it to his liking and was trying to establish a practice of his own.

On his return, full of new ideas and enthusiasm, he was informed that Dr A. H. Ferguson, one of the older, well-known surgeons of Chicago, convinced of the practicability of the button, had operated upon a patient for cancer of the stomach, and, after removing the pylorus, had made the anastomosis between the remainder of the stomach and bowel with a button. J.B. was delighted to hear of this. "That's the first case of its kind to be operated upon using our button," he said gleefully. "Now they'll begin to believe me."

He had completed his paper for the American Medical Association, and went to Milwaukee, where the organization was holding its annual meeting, to deliver it. In this he reported the results of twenty successful cases of anastomosis of the gall-bladder and duodenum in which the button had been used. His report and conclusions were received by the assembly with enthusiastic interest, as was another paper published subsequently in *The North American Practitioner*, entitled "Original Research in Abdominal Surgery—Ideal Approximation of Abdominal Viscera without Suture." So much importance was attached to his findings that the New York Academy of Medicine invited him to give an address. He accepted. The date agreed on was December 7, 1893. He went to New York alone, but he carried with him some advice from his wife. Nettie, who had a deep respect for such things, had told him that Easterners were reserved and suave; that he too must, if he wished to impress them, be reserved and suave; must try desperately to speak softly. He was still having trouble controlling his excitement and his voice. But it is recorded that he spoke very diplomatically, probably on Nettie's advice, in his opening remarks in New York. "If some phases of the subject of intestinal approximation appear to be treated cursorily," he said to the august body he addressed, "it is because the gentlemen who will speak later have had a greater experience in certain procedures and are,

therefore, better able to present the subject from a practical standpoint." Now that was a startling statement to come from J.B. A dogmatic man, he rarely left to anyone else that which he could do himself. Modesty never had been a part of him, save when it served to gain him an end.

The ball had gathered momentum and was carrying him along with it; carrying him along to fame, honours, and fortune. But the greatest honour yet was awaiting him when he returned from New York—an invitation to address the Eleventh Annual International Medical Congress in Rome in the latter part of March. There was no question about his acceptance. His wife was overjoyed. Their journey meant that J.B. would have to leave his work; would be forced to rest. February 23, 1894, found Dr and Mrs Murphy at the Windsor Hotel, New York, on their way to Europe. The faithful Hartmann was left behind. His chief would fill his days with instructions. That very day he wrote:

DEAR DR HARTMANN,

To-day I telegraphed Truax, Green and Co. to send Dr Bryant an oblong button. Call them up and see that they have filled the order. My intestinal paper will not appear until May. Inform Dr Cleveland to that effect at once. Put in all the new cases you hear of before that time. If intestinal cases, insert the history; if gall-bladder cases, just add the number and place them in tabulated form. I have learned of two cases here so far. Will give you full particulars before I leave. I have seen a number of doctors to-day and have heard much comment on my paper. They all say I have converted the town and that nothing can prevent its universal adoption here but failure of the button. It has been tried often and we do not worry much about that. It is most amusing to note how the tide has turned.

And the next day:

DEAR DR HARTMANN,

When you get the proof of the article on appendicitis for

correction insert the following under "Symptomatology of the Four Cardinal Symptoms"—"I will not mention the many other manifestations presented by this disease, but refer you to that most excellent article on the clinical aspects of appendicitis by George P. Shrady, *Medical Record* of January 1894."

There are some mistakes in the last four or five cases in the intestinal article histories. I will correct them and send you a copy as soon as we land. Then you can correct the tabulated sheet and make them correspond. Abbe did a cholecystenterostomy three days ago and all is going well with the case. I am going with him this morning to see him operate upon a case of appendicitis and perform a supra-pubic cystotomy. I sent you by to-day's mail the drawings not used in the *Record* article. Have Cleveland put them in his paper. Have him make the others, but put them all in. Dr Abbe did a cholecystenterostomy successfully three days ago. Dr McBurney did one. The button in the first case I did for him passed in nine days. He is very enthusiastic on the button. . . .

When he arrived in Rome J.B. was fearful that the paper he had read to the New York Academy of Medicine might appear in a journal published in Chicago by Dr Cleveland before it was reproduced by the official organ of the New York society. This worried him considerably, as is shown by a letter he wrote to Hartmann as soon as he arrived in Rome. If this happened he knew it would be an affront to the surgeons of the East whose support he was so anxious to gain, for it had become obvious that the majority of his Chicago colleagues were only lukewarm, if not actually hostile, to his work.

The malicious rumours for which he had so strong an affinity had not lessened because of his success with the button. On the contrary, they had increased. His fellows now said that he had stolen the button idea from Denans; that Hartmann did all his work; and that—and this was the latest and most widely whispered rumour—he operated upon

everything he could get his hands on, regardless of the trouble, but included only the successful cases in his reports. J.B. had heard all this, and defended himself to Hartmann by saying that any cases which were unsuccessful were due to faulty technique on the part of the surgeon and not to the principle of anastomosis with his button.

There is evidence to support the rumours. In a letter from Rome, dated March 18, 1894, he wrote:

DEAR DR HARTMANN,

. . . AS soon as you receive the proof from New York get Dr Stanther to come to your home one night and correct it and make the additions [cases] that you have had since I left home. If Abbe's case terminates fatally, as I have some fear it will from the facts that he sent me—"bile was being discharged through the drainage from the first day"—it shows some defect in his approximation; either he made the opening too large or did not close the button properly. On thinking over what he said, I would not include it in the numbers. All the other cases include. Cleveland must not have my paper appear before it does in New York. If it did it would be a calamity to me that nothing could rectify.

Will you please send me the particulars of Dr Burkhart's case, as I may want to use them in Paris or London. Please telephone Dr O. L. Schmidt that I will not be able to deliver a lecture before June first, but I will be home about May 7th. We were particularly interested in your report of the children. My wife said that was worth more than a dozen button cases.

So far I have done nothing in a medical way. I have spent most of my time sightseeing and resting, and have only half succeeded at that. We abandoned our trip to Egypt as I could not get back in time for my paper, and the others thought the trip too severe to make. From all I can learn they are going to have a good meeting here and all countries are well represented. There are upward of 3000 papers and some 8000 rooms engaged, so you see that promises well. The town is so full

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now I do not know how they will care for them. On all sides we hear the greatest praise for Chicago for its World's Fair record. I am sorry I cannot tell you all we have seen, but that would be out of the question. We saw Gibraltar, Algiers superficially, and Naples thoroughly. Now we are doing Rome systematically.

Papers, papers, papers. In other letters he speaks of papers, proofs, printings, and plans for more papers. The Congress was in session on March 30, and during one of the meetings he wrote to Hartmann:

MY DEAR HARTMANN,

I am now looking at a man speaking in Italian and cannot understand one word, so I have time to drop you a line. The Congress opened yesterday with an enormous crowd and no provision made to handle it, but we succeeded in getting a fair place for the exercises. The King and Queen opened it. We saw most of the lights of the profession here. Virchow gave the opening address. In the afternoon the President appointed the honorary presidents for the surgical section from the various nations.

Germany, von Bergmann; Switzerland, Kocher; Ireland, Stokes; England, Sir William MacCormac; Austria, Mickulicz; America, Murphy; Scotland, Macewen. You can imagine my surprise as well as my pleasure to find my name in that group. It was certainly a great honour, particularly when I felt there was scarcely a man present who knew me. But after the session I found a hundred that knew of the button and not less than ten that had them in their pockets. I am going to read my paper to-morrow morning, and have been promised a case to operate upon before the session is over.

Never in all his life a good speaker—in fact, quite bad upon occasion—J.B. was at his best before that distinguished group of surgeons, and with Nettie in the audience. Although many of them could not understand his words, the young American's

dynamic enthusiasm greatly impressed those of other nationalities. He was besieged with invitations to address surgical societies all over the Continent, and some of these he accepted. He was especially glad to be asked to speak in Berlin, because he was familiar with the language and because he wanted an excuse to visit Germany, where he had spent such pleasant months as a younger man. After addressing the Deutsche Gesellschaft für Chirurgie he was made an honorary member. He visited several surgical clinics while in Berlin, and upon a number of occasions operated for the purpose of demonstrating his technique. They went from there to Paris, where the subject for discussion before the Académie de Chirurgie was "Intestinal Suture," so the button was an appropriate topic for discussion. J.B. was presented to the Society and made an honorary foreign member. In a letter to Hartmann about this J.B. wrote: "During my introduction the President boomed the button, and altogether it was a gratifying experience."

From France they crossed to England to visit Berkeley Moynihan and to look up a less well-known surgeon who had reported in *The Lancet* a case in which seven inches of the large intestine had been removed for a sarcoma and the anastomosis had been made with the button. After meeting the latter doctor J.B. reported to Hartmann: "He is a very good man who has done much work in this line, and he is more than pleased with the button." As it had been on the Continent, Murphy's reception in England was warm and enthusiastic. Thus his was a triumphal march through the most fertile surgical field in the world, without a dissenting voice raised against his experimental or clinical results. Remembering Lee's advice about cultivating a reputation abroad, J.B. made an effort to cement friendships wherever he went.

Young Hartmann, worn ragged by instructions and com-

mands, did not shrink from acting as publicity agent for his hero; he lost no time in spreading the news of the honours which had been accorded J.B. No other surgeon in Chicago, with the exception of Senn, had been grouped with von Bergmann, Kocher, and Mickulicz. J.B. could afford to ignore his Chicago brethren who were begrudging him his success, who were openly criticizing him as an opportunist devoid of real scientific honesty. When he returned, to find more patients waiting than he had ever had before, he found also hostility among the members of the medical profession, which he rightly put down to envy.

His old friend Lee was seriously concerned, and in his usual tactful and indirect manner approached J.B. on the matter of his case reports. "The greatest criticism, J.B., seems to be that they think the reports are too good to be true. You haven't recorded a failure, either in your own cases or in those operated upon by other surgeons."

"Now look here, Dr Lee, I'm trying to show the profession a rapid, safe method to perform intestinal anastomosis. It's not fair to the method to charge up errors in technique committed by surgeons who could have avoided mistakes by experiments upon animals or by practice on corpses."

That was all very well and good, but his critics had an argument too. They pointed out that he might well have told the whole story and let others judge for themselves. How could Lee, gentle fellow that he was, come out and say in so many words what he feared for his young friend? All he could say, being the man he was, was what he did say: "Remember, J.B., nothing can prevent the universal adoption of the button but its own failure."

J.B. had left himself open to justifiable criticism at last. Now those opposed to him and to his growing power had meat to feed on. It was not long before the pent-up emotions of an older man feeling the pressure of a young rival for his

honours and practice broke forth. Nicholas Senn, having been elected to the presidency of the American Medical Association, felt that at last his position warranted his speaking his convictions. At last he could come out and say what he thought about this young whipper-snapper, who, he believed, was an unethical, dishonest opportunist who was doing more harm to the profession and to humanity than good. In an article which constituted his presidential address before the Association Senn reviewed exhaustively the history, technique, and status of intestinal anastomosis. Probably no one in the United States was so well equipped to review critically the subject. In his speech Senn dwelt at length on the Murphy button and pointed out that, although it was an exceedingly ingenious appliance, its mechanism was no improvement over the rings invented and used by Denans more than half a century before. It was his opinion that such a large foreign body left in the intestinal canal might easily become a source of danger on its passage downward.

"Who would guarantee," he said before the American Medical Association, "that the metallic objects would not perforate the intestine? Any instrument, suture, or ligature used in effecting the continuity of a wounded or divided bowel must be looked upon as a source of danger. It is impossible to effect an aseptic necrosis in the interior of the bowel, and dead tissue inhabited by pathogenic microbes always constitutes a source of danger. It is easy enough to produce gangrene, but we are powerless in limiting its extension in this locality. The limited area of living tissue brought in contact outside the rings of the Murphy button will not always prove adequate in the protection of the peritoneal cavity against perforation and its immediate result—septic peritonitis.

"I have knowledge of a number of cases in which the parts approximated by the Murphy button were found completely separated at the post-mortem examination. As a means of

end-to-end union of the intestine the Murphy button is certainly inferior to Denans' procedure because the lumen of the connecting part is not large enough as a temporary outlet for the intestinal contents above the seat of operation. The size of the button is also a very serious objection. I have operated for intestinal obstruction produced by gallstones less than an inch in diameter which have become impacted in the lower end of the ileum, and other surgeons will recall similar instances. Keen gives the post-mortem record of a case of malignant disease of the colon in which an anastomosis was established by using a Murphy button one inch in diameter. The patient survived the operation forty-seven days. The anastomotic opening had become reduced by one-half in size by contraction during this time. If this warning of so eminent a surgeon foreshadows the final verdict of the profession in regard to the use of the button for anastomotic purposes it will never come into use in end-to-end approximation."

Senn's statements carried great weight with the medical profession throughout the country, and particularly in Chicago. Those who disliked, distrusted, or were envious of Murphy were quick to applaud. After all, Senn had earned his spurs. He was no quack—no button-inventor. He was a brilliant surgical technician. As a doctor during the Civil War he had achieved a brilliant reputation; he had been acclaimed an international figure for the presentation of his classic experiments upon peritonitis before the International Medical Congress in Moscow. While the careful, methodical Fenger would require two or three hours for the removal of tuberculous glands of the neck, Senn would complete the dissection in less than thirty minutes. Not only was he Chicago's leading surgeon, he was the foremost surgical teacher in the Middle West; his clinics were well attended by his professional colleagues as well as by students. But, as proof of his carelessness in operating, his former interns said

that when he showed his cases in clinic he would wipe off the pus and say, "Just a little primary wound secretion."

Senn had devised, used, and cast aside bone discs for use in the anastomosis of the gastro-intestinal tract and was a strong advocate of anastomosis by the use of sutures. Invariably in his clinic his surgical nurse would hand him a sterilized Murphy button for use, and each time Senn would throw it dramatically on the floor before proceeding with his operation. This pettiness in Senn reveals the truth: his fight against the Murphy button really was a fight against Murphy. Senn used his classroom and his position as President of the American Medical Association to belittle and decry Murphy through the latter's famous button. To say that Senn's influence was wide is an under-statement. Through the pages of *The Journal of the American Medical Association* he reached every civilized country in the world. And J.B. felt it and was hurt, but he never lowered himself by publicly resenting the attacks made upon him. Nettie was the only living being to whom he gave vent to his feelings. His wounds, his depression, his anger, he brought home to her, and she tried everything she knew to keep up his *moral*, to strengthen his self-confidence. It was difficult at times because J.B. wanted terribly to be liked, to be admired and respected; and yet all about him his colleagues were whispering against him. No matter how hard he worked, no matter how much he smiled, the glaring fact faced him everywhere: he was not liked by the doctors of his own city. Nettie had to remind him of St Matthew's record of Christ's teaching: "A prophet is not without honour, save in his own country, and in his own house." She counselled him to build his reputation elsewhere, showed him that recognition of his work must come from those not in competition with him. But in spite of her good counsel during this period J.B. was disconsolate and melancholy. All he could do to throw these weights off his mind was work, and he worked as he had never worked

before. From morning to night he was operating, visiting the sick, and when night came he led his assistants into his laboratory for more work.

The pace was terrific, and young Hartmann broke under the strain. By the time summer came he was a physical wreck. J.B. shipped him off to Colorado Springs for a vacation—good, faithful Hartmann. Then in August of 1894 J.B. and Nettie went to Manhattan Beach for a few days' rest and the opportunity to visit the clinics of New York surgeons, particularly Joseph Price. Murphy was following his wife's advice to build his reputation elsewhere. His spirits rose upon his arrival in New York City, as a letter to Hartmann shows:

MY DEAR HARTMANN,

We arrived here yesterday and are just settled down for a few days' rest. I find my wife has improved very much since she came here. I trust you are having a good time and gaining every day.

All was well when I left Chicago. I had two laparotomies on Saturday and one on Friday. All good cases and will recover. That typhoid appendix sure was in good shape when I left and I believe she is going to recover, but what a time I had with her! I would not want many such cases if I expected to live long and happy.

Professor Knox, of Glasgow, was with me Saturday. I had him do all the button operations, starting the day at eight o'clock. Then I took him through the Cook County; then to St Joseph's, and there I did a lap (cyst of bowel ligament) in eighteen minutes. Finally I showed him all my laparotomies at the hospital: eleven in all. Then he exclaimed, "My God, Dr Murphy, do you work this way every day? Do you do nothing but laparotomies, and where do you get them all?" I had still another lap to do at 3200 Emerald Avenue, but he was used up and begged to be excused. It was a pyosalpinx-adherent with an enormous abscess in the ligament. I sewed it to the open margins and let it remain for forty-eight hours. The doctor in Chicago in

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charge of the case kept insisting it was serum, as the woman had no temperature. I took out a syringe barrel full of it for his benefit and gave him a smell close to his nose that he will remember for many a day if not longer.

I am going to rest here for a few days, and then I am going over to New York and down to Joseph Price's for a day. You must make up your mind that you are not going back to Chicago for five or six weeks at least.

Of what value was the Murphy button to surgery? Until Murphy came along many attempts had been made to simplify gastro-intestinal sutures. Whereas Murphy made use of the Denans principle, he, not Denans, was responsible for the simplification of anastomosis as it is practised to-day. Not only did Murphy's invention encourage surgeons in large numbers to invade the gastro-intestinal tract, but at the same time it roused an opposing clan of surgeons and fired them to seek a superior method of performing anastomosis by sutures. Thus it may be said that Murphy, by starting this technical war, did as much to put intestinal surgery on a sound basis as did his button. Nearly every surgeon took a side, and all operated with all the skill at their command to prove themselves right. It became a matter of justifying their own opinions. Against present-day standards and the high level of surgical technique the advantages or disadvantages of the button cannot be judged. It must be considered in the darkness of the nineties, when almost nothing was known of abdominal operations. As a result of innumerable contributions from many sources, to-day silk and catgut sutures have become successful generally and to a certain extent the button has been outmoded. But even to-day Murphy's button is used by highly skilled surgeons when the situation demands a simple, rapid union where anastomosis by sutures is well-nigh impossible.

CHAPTER XIII

ONCE again tragedy entered the home of the Murphys. All three of the children became ill with measles, and five-year-old Jeannette developed pneumonia and died, despite all that J.B. and his knowledge could do for her. To add a *macabre* note to the tragedy, while J.B. and Nettie were at the cemetery the dead child's nurse stole all her clothing and disappeared.

The Throop Street house, a wedding present from her parents, became to Nettie a constant reminder of what she had suffered there. So long as she lived within its familiar walls she would remember that in it she had lost her first-born and little Jeannette. But so completely had she subjugated her life to that of her husband that she would have endured unhappiness and said nothing had not J.B. received an offer of a clinical professorship in the North-western University Medical School and an invitation to join the staff of Mercy Hospital. The invitation came through Christian Fenger, head of the surgical department at North-western. He was anxious to have J.B.'s help in the school and his patients in the hospital.

As an inducement to settle the matter Fenger promised that J.B. would succeed him as head of the department. Although inclined to accept his friend's offer, J.B. was slow to make up his mind. There was nobody he admired more than Fenger, nobody with whom he would rather have worked. His colleagues at St Joseph's had never warmed to him, and he was still uncomfortable there, but a complete change of background needed deliberation and much thinking over.

On being told of Fenger's invitation, Nettie was anxious for J.B. to accept it; she thought that he would be happier in new surroundings. Then, too, Mercy was the oldest hospital in Chicago and the leading hospital in the Middle West. Under the name of the Illinois General Hospital of the Lakes, it had been founded in 1850. The following year a Catholic order, the Sisters of Mercy, took charge of the rapidly failing institution, increased the number of beds, and under the new name of Mercy Hospital made it prosperous.

Wisely allowing J.B. to believe that he was making up his own mind, but fully determined that he would go with Fenger, Nettie went house-hunting. On Michigan Avenue, just south of Thirty-First Street, she found a place that suited her, and then she started to talk about taking it. She pointed out the fact that a prominent surgeon should have a fashionable address, that Throop Street was becoming shabby since everybody of note was moving to the South Side in the wake of the McCormicks, the Cudahys, and the Marshall Fields.

J.B. listened and went with her to see the new house. But even though he acknowledged that it was a lovely place, he was not convinced that they should move or that he should leave St Joseph's. Only two years had passed since the financial panic of 1893, and the memory of those harrowing days was still fresh in his frugal mind. Banks had failed, factories had shut down, and hundreds of workers had been jobless. He felt that they should not be led into extravagance by what might be a premature boom.

Without mentioning her own desire for change, Nettie kept to her talk of the desirability of a select and dignified neighbourhood; of what working with Fenger would mean for J.B. At last she succeeded in wearing J.B.'s objections down, and he told her to take the Michigan Avenue house, even though it bankrupt them.

Happily Nettie set about the work of decorating and

furnishing the new home. J.B. had not promised to leave St Joseph's, but that would be attended to later. While painters were at work, while curtains and draperies were being made and upholsterers tacked away at the furniture, she secretly conferred with Fenger about the installation of a laboratory for J.B. in the stable. Following Fenger's advice and without letting her husband suspect that she was busy with more than the house, she equipped the place so that it was as fine as any college laboratory in the city. Then, while the last of the packing, the moving, and settling of the house was in progress, she persuaded J.B. to take her to Florida for two weeks.

Although he had worn his inevitable rubbers and had been careful to dress warmly, J.B. had not escaped a cold. The old spectre of tuberculosis came back to haunt him, and Nettie's idea of Florida and sunshine seemed good to him. While in Florida he made up his mind to accept Fenger's invitation to join the faculty of North-western University and to make Mercy Hospital his professional home.

The new house was ready and waiting for them when J.B. and Nettie returned from Florida. Although he still declared that 100 dollars a month was an exorbitant rent to pay, J.B. was forced to admit that it was an attractive home. Larger than the Throop Street place, it had ample servants' rooms, two baths, a fine stable, and was flanked by the homes of Chicago's wealthiest families. It was but five minutes' ride from Mercy Hospital. Best of all was the laboratory. Truly his wife was a wonderful woman!

Now a new cycle in his life began.

If he had thought by moving to Mercy Hospital to escape his belittlers, then J.B. had been over-optimistic. For no sooner had he established himself by concentrating all his patients at Mercy than new rumblings of envy and spite began. Whereas the Sisters saw in this energetic Irishman great possibilities, a definite asset to their hospital, the other members

of the staff, with the exception of Fenger and Morgan—a fine surgeon slightly older than J.B.—let bitterness grow in themselves, let whisperings come out. In those days an individual doctor's position in a hospital was gauged by the number of his patients, by the income he brought the hospital. Murphy, therefore, was king-pin overnight, and in his dogmatic way he commenced wielding the sceptre. It is a sad observation that, instead of rousing the respect which he so desperately wanted, his nature was such that he antagonized his fellow-doctors beyond endurance. A group of them protested to Fenger that Murphy's influence was rising too rapidly for the good of the hospital. They pointed out in their anger that the man with the most patients is not necessarily the best doctor; they said that often the attending staff member who contributes the most to medical knowledge, scientific progress, and the training of young men is but a small contributor to hospital income, and yet it is this conscientious man who builds a strong foundation for his hospital—a foundation which does not disappear into thin air when the popular physician's day is done. "You'll regret it, Fenger," they said. "He'll take your patients and your job away from you."

Fenger's reply is typical of his greatness: "Nothing would make me happier, because I'm immodest enough to think that in a very small way I've helped him. You, gentlemen, forget that Murphy has ability, energy, and ambition, as well as more patients than any one of us." Interested as he was in Murphy's future, Fenger went to J.B. "Dr Murphy," he said, "you have gained a reputation with your experiments in intestinal surgery, with the button, and your fine work in appendicitis. You should not stop there. You should show the surgical profession that you are a versatile surgeon."

J.B. agreed with him. "You are right, sir. Every doctor seems to be operating upon his own cases of appendicitis now."

And it was here that the new cycle began.

To what would he turn? The first intimation the medical world had of his new task came on September 15, 1896, when, before the Mississippi Valley Medical Association, meeting in St Paul, Minnesota, he read a paper entitled "Surgery of the Gasserian Ganglion, with Demonstration and Report of Two Cases." The demonstration consisted of an operation before members of the Association upon a patient with trigeminal neuralgia, or tic douloureux. Thus he had dared to invade the nervous system at a time when this branch of surgery had hardly been touched! Only five years before the first operation in America for removal of the Gasserian ganglion had been undertaken by Edmund Andrews, of Chicago, following the procedure of Rose in England. The operation was one of more than considerable magnitude and claimed a mortality rate of close on 100 per cent. Hartley in New York and Krause in Germany had suggested modifications which simplified the operation considerably, but it was still a formidable procedure. In the operation before the Association J.B. characteristically emphasized the dangers and difficulties of former procedures and stressed the key steps which were essential in the technique. Though his operation was dramatic and he demonstrated that his surgical skill and technique were adequate to meet the exigencies of what, in comparison with to-day, must have been a harrowing operation, Murphy added nothing to the refinement of the surgical treatment of tic douloureux.

Neurological surgery was not all, however. Late that same year, before the Chicago Pathological Society, he presented a patient upon whom he operated for fibrous tumour of the uterus which was complicating pregnancy. In a daring and spectacular operation he had exposed the pregnant uterus, removed the tumour, repaired the incision in the uterus, and

had not disturbed the fœtus. He was delving into everything and extending his fields of surgical endeavour rapidly.

Early in 1897 he published an article on "Resection of Arteries and Veins injured in Continuity—End-to-end Suture." Later, in an extensive paper presented before the Twelfth International Congress of Medicine in Moscow in August of 1897, he stated that the year before he had performed the first end-to-end union of an artery ever made. He had, he claimed, excised half an inch of the femoral artery, the large vessel of the thigh, and had re-sutured the divided ends.

J.B.'s interest in blood-vessel surgery had been stimulated by an experience while he was associated with Lee. A case of aneurysm of the internal carotid artery was mistaken for a tonsillar abscess. Incising what he believed was the abscess Dr Lee had actually opened the aneurysm. As J.B. described it, this is what took place:

First a few clots of blood slowly wriggled their way out, and, a little faster, a few more. Then came the rush of the arterial current with the full force of the spurting carotid. The patient, strangling in his own blood, struggled wildly, and his friend ran away in a panic, an abject deserter. Before Dr Lee could gain control of the patient the latter had bled to death, and the office was like a shambles from the struggle.

It had made a strong impression on Murphy—almost as much of an impression as had the scene in Dr Reilly's office many years before. He decided to do something about it. After this dramatic statement J.B. mentioned thirteen different forms of treatment for aneurysm, followed by a statement that no surgeon should start the active practice of surgery until he has done a considerable amount of experimental work on arteries and veins of animals.

He had no intention of limiting his work to the abdomen or to any other part of the body. If that had been the impres-

sion he gave, then he would correct it. He was determined to explore all parts of the body of man under the belief that a surgeon's skill should have many sides. Even now he began experimenting on the lung. Fenger's advice had been good for him.

In the face of such startling, such daring clinical and experimental investigations, the medical profession could not continue to pooh-pooh Murphy. He was overwhelming his fellows and his profession with work such as they had seldom seen. They might not like him as a person, they might be annoyed by his supreme egotism, the dogmatic air he exuded, but they could not afford to ignore what he was doing. No longer was there any doubt but that he was an amazingly dexterous surgeon, that he was a man with imagination and ingenuity; one who, even if his ethics had been questioned, nevertheless was a credit to his profession. If there was no way of knowing his complete record because he reported only his successes, still those were numerous enough to balance any weaknesses he might have as a personality.

At last the time came when J.B. found himself recognized as he always had wanted to be recognized—that is, by his colleagues. The recognition was abrupt. He was invited to deliver the annual oration in surgery before the American Medical Association when that society convened in Denver in June of 1898. He was forty. The invitation was a singular honour for such a young man.

Taken into the fold at last! His happiness prompted him to quote a favourite bit of verse from Kipling:

Now this is the law of the jungle—as old and as true as the sky:
And the wolf that shall keep it may prosper, but the wolf that shall
break it must die.
As the creeper that girdles the tree-trunk the law runneth forward
and back—
For the strength of the pack is the wolf, and the strength of the wolf
is the pack.

He was ecstatic in his joy, but tried not to show it. However, in spite of his dignity, in spite of his beard and his frock-coat, he dropped all pretence when at last he and Nettie were alone. He danced his wife about the room.

"I knew they'd have to give in some day," she told him. "I knew it!"

"You'll have to go with me, Nettie."

"I wouldn't miss it, darling."

"We'll spend a few days at the Springs after the meeting."

She stopped their headlong flight. "You must prepare your paper very carefully, J.B. What will it be?"

III

In writing his paper J.B. stuck to his characteristic style of propounding questions and then answering them. In this way he exhausted the surgical literature on lung tumours, lung abscesses, and gangrene of the lung. Then he reported on his experiments in removing lobes of the lung. His main theme, definitely dramatic in his fashion, was a procedure for the operative treatment of pulmonary tuberculosis, with emphasis on those cases which were advanced beyond repair by Nature.

Startling as was Murphy's procedure, which included collapsing the abscessed portion of the lung by the introduction of nitrogen gas, he was not the first to propound this idea. In the case of the button they had said he stole it from Denans; in this case they were going to point to Forlanini, an Italian.

Even Forlanini was not the first, although he may have preceded Murphy. In 1822 a Scotsman, James Carson, had suggested curing lung diseases by allowing air to enter the pleural cavity and thus collapsing the lung. But until the time of Pasteur it was thought that air itself produced pus, and so Carson's idea was discarded. Then, with the development of knowledge concerning bacteria and asepsis, it became possible

to fill the pleural cavity with air freed of bacteria; and it was natural, therefore, that some surgeon should resurrect Carson's theory. Evidently Carlo Forlanini was the first surgeon to inject air into the chest of a tuberculosis patient, after having experimented with animals—in the year 1888. The patient in question already had a collection of fluid in the pleural cavity, though, and it was not until 1892 that Forlanini collapsed a diseased lung by the injection of air into a relatively normal pleural cavity. In that same year Murphy had noted that cases of tuberculosis which developed fluid in the pleural cavity improved very strikingly. From this clinical observation he had concluded that compression of the lung was the factor which favourably affected the curative process. Thus it may be said with fair safety that Murphy and Forlanini were struck with the idea about the same time. J.B. had become concerned with the problem of lung diseases in 1891, when he had symptoms of tuberculosis and went to New Mexico.

In his paper for the Denver meeting of the American Medical Association J.B. emphasized the basic thought which he believed to be the underlying principle in the cure of these diseases: "Allow the walls of the abscess to collapse, to empty thoroughly, and it will heal as other abscesses of the same pathologic character; this I believe is the keynote to the successful treatment of pulmonary cavities." His conclusion was, "Tuberculosis of the lung might be treated as we treat tuberculosis of the joints—by immobilizing and enforcing physiologic rest."

J.B.'s experiments had been made with a new assistant he had added to his staff—August Lemke. Lemke was a placid, stolid young fellow of German parentage, who had served J.B. as an intern at the County Hospital. He was overawed by being in the presence of Murphy, and was a faithful, hard-working plodder whose personal ambitions never rose higher than the privilege of serving his chief.

After discarding many methods they had finally injected nitrogen into the pleural cavity to compress the lung and put it at rest. In his paper J.B. demonstrated the practicability of the method by reporting its use in eight cases. He applied the terms "dysfunctionalization" and "therapeutic pneumothorax" to his method, but to-day the same method is frequently employed as "artificial pneumothorax." He recommended to those doctors gathered in Denver that "the lung should be kept quiescent from three to six months, or even longer, depending on the symptoms."

The oration was received enthusiastically by the assembled physicians and surgeons, and to-day it ranks as a classic in the literature of thoracic surgery. He read it on the morning of June 9, and following his appearance the Association extended him "a vote of thanks for his able and instructive address."

Was it possible, then, that J. B. Murphy could appear before his colleagues, stimulate their minds with the advancement of new theories, without leaving a backwash of tongue-wagging in his wake? Had he at last swung out of the orbit of calumny? Had he become so large that he had grown above finger-pointing?

Reverberations began the next day—Friday, June 10, 1898. On the front page of *The Chicago Tribune* there appeared an article which the editors evidently had felt deserved as much importance as stirring stories of the Spanish-American War. It was headlined:

SAYS HE CURES CONSUMPTION

DR. J. B. MURPHY OF CHICAGO ADDRESSED
THE AMERICAN MEDICAL ASSOCIATION IN DENVER

HOW TO TREAT THE LUNG

COLLAPSES THE ORGAN BY NITROGEN GAS INJECTED
THROUGH A NEEDLE IN THE PLEURAL CAVITY

Quick Success in Five Cases

The story was continued on page seven in two columns, and a two-column picture of Murphy was included. His manuscript was quoted extensively, and the article ended by describing in detail the experimental laboratory in the upper story of the stable at the rear of his residence. An appendix to the article told of Koch tuberculin and the microscopic appearance of the organism which caused tuberculosis.

The medical profession of Chicago was shocked by the prominence given to the report of Murphy's speech, although its news value, of course, was considerable. Reverberations of the stir it caused may be heard even to-day. Exaggeration has swelled the tale until it is said that, owing to a postponed programme, the article appeared in the Press before Murphy delivered it. But the fact is that Murphy's colleagues believed, and with considerable ground to do so, that some one had arranged with the paper to print the story, and that the person, in all probability, was Murphy. No one seems to have suspected Mrs Murphy of giving the story to *The Tribune*. As a matter of fact, it was far more like her than Murphy. In the first place, J.B. knew better. Secondly, Nettie was a firm believer in publicity, while J.B. believed that it had never done him as much good as it had harm. Whether Lemke supplied a copy of the address, thinking he was being of help to J.B., whether *The Tribune's* Denver correspondent telegraphed the story (both of which explanations are unlikely), or just how it came to be printed no one will ever know. In any event, it made a large number of Chicago physicians and surgeons boil—outwardly, because their profession was being dragged through a puddle of prosaic printer's ink; actually, because J.B.'s name was again in the public's eye.

But that was not all. Before J.B. took the rostrum a jobbing printer of Denver, one C. J. Kelly, had printed and distributed a syllabus of the address. That little gesture seemed to J.B.'s enemies proof positive of his unprofessional practices. It was

not that the paper did not deserve publication, but only that any man could be so egotistic as to arrange such publicity. Murphy denied that he did it. Having no witnesses, we have to believe him. He accused persons unknown of plotting to embarrass him.

When news of the criticism from his Chicago brethren reached him, as it did while he and Nettie were in Colorado Springs, J.B. was made ill by it. Just when it seemed he had gained the respect of the profession he found his hopes dashed by one edition of a newspaper. Naturally he was greatly distressed over this fresh attack upon his ethics. "Who did this thing?" he demanded of his wife. "Why do these men resort to such methods to discredit me? Can't they understand I'm only conscientiously doing my bit for medical science?"

Nettie tried to comfort him. "You know, J.B., it has always been so. Look at other great doctors: Pasteur had injustices by the dozen heaped upon his head, and you yourself have often told me how Joseph Lister was at first the laughing-stock of his countrymen."

When they reached Chicago—but let J.B. tell it in his own words:

... I found my room packed three feet deep with mail from persons who asked about the treatment. The first time in my life that I was ever frightened was when I saw that mass of mail. With the great demand from the public there was only one of two positions to take—either to go into medicine and become an internist [physician] or decline to give any treatment for tuberculosis of the lungs and remain in surgery.

As a matter of fact, he did neither. What he did was to turn over all those patients to his assistant, Lemke. At the next meeting of the American Medical Association, as a result, Lemke and Murphy reported the use of artificial pneumothorax on fifty-three patients. Although the treatment was carried

on by others, J.B. did not relinquish a personal interest in the results.

When they reached Chicago they found that the criticism of the newspaper article was considerable and vehement, but they found also another criticism. Nowhere in his paper did Murphy mention Forlanini's name, although the *Index Medicus* and the *Surgeon General's Catalogue* both contained references to his work. Several years later, in defending himself on this point, J.B. said, "After I read that paper in Denver in 1898 I found that Forlanini, of Italy, had temporarily used the nitrogen gas, although not in the same way, some ten or twelve years before." Evidently he did not attach very much importance to Dr Forlanini, but Dr Forlanini did. In a letter to an American friend the Italian surgeon wrote:

I see that in America some other physicians, such as Lemke and Schell, following Murphy, have carried out the same treatment, and in Europe all quote these as the originators of it and no one remembers my name, so that the method to which I have the prior claim is called by all "Murphy's method." I have decided therefore to make a communication of my ideas and results to the Reale Istituto di Milano as soon as this society commences its sittings.

In 1914, disgusted with the controversy which still raged in the profession, J.B. stated his position in the matter. His words reveal his dogmatism:

In classifying Murphy's technique a Boston writer, who evidently does not read American medical literature, gave the plan as the incision administration of gas. Murphy has never administered nor even thought of administering the gas through an incision (Forlanini's method).

We take pardonable pride, we hope, in seeing this method universally adopted—sixteen years after it was first advanced by us—as an effective treatment for pulmonary tuberculosis.

That was his last word on the subject.

IV

But as if his embarrassment were not enough to overflow his cup of bitterness, shortly after they returned home to Chicago and its doctors' whisperings J.B. received word from Dr Reilly that his mother was ailing. He took the next train to Appleton. "I'm afraid she can't last much longer, Johnny," the now very old Dr Reilly told him. "I thought you'd want to see her before she goes."

As they rode out to the house the two doctors, pupil and preceptor, talked of medicine and surgery; and J.B. found that, although Dr Reilly's mind was still alert, he, Murphy, could not talk to him about what was going on in the world outside; he found he had no enthusiasm for medical discussion. His hurts were too new to make such talk a pleasure. Instead, he kept switching the conversation by pointing out old landmarks he had known, by inquiring about certain people who had lived thereabouts. When they reached the old Murphy homestead the younger man went to his mother's bed with a sick heart; he knelt down beside her without waking her and took her hand in his. Slowly she opened her eyes and smiled at the sight of him. "It's good to have you home, Johnny. Now I can go."

He wished that he might wipe away the years and be nothing but a child again. "You mustn't talk that way, Mother," he said. "I'm going to stay here until you're well again."

She would not argue the point with him—not at a time like that. "Come close, son," Ann Murphy said, feebly reaching out her arms to her son. When he put his head on her withered breast she rocked him back and forth like a child, but there was only the shadow of the caress because her strength was so small. "Nettie has written me about your enemies, and about what they've said about you," she whis-

pered, as if consoling a bruised little boy. "Don't mind them. Remember—good for evil. You can kill them with kindness. Remember?"

He nodded his head, murmured, "Yes."

"I'm mighty proud of you, Johnny—that I am."

She talked to him of his childhood, how she had known even then that he was destined to be a great man. "You always was quicker than the rest," she said. And after a while, when she had satisfied some of the craving in her heart, when she had told him how much she loved him, she said, "Johnny, I'm tired," and died.

J.B. buried her beside his father in the small graveyard which overlooked the farm. There, in those cleared fields below, Ann and Michael Murphy had laboured long that their children might be educated. Their work had not been in vain.

CHAPTER XIV

WHEN J.B. was introduced to anyone he would stiffen, put his heels together, and make a very low bow. This rather Continental pose he had acquired in his Heidelberg days. That he continued it throughout his life is more than an insight into his character. Bridge was a favourite pastime, and he always started a game by saying, "Here's where friendship ceases." He never liked to play for money, but "only for the fun of the game—to see who is the best man." He was what might be termed a gloating winner, and he always wanted to play the hands. If he could outbid his partner he would do so, for he sorely disliked being dummy.

Nettie always ordered his clothes, and the tailor would come in the evening to fit him. She bought his shoes, too. He did not require a large size, but he thought it was terrible for a man to have small feet, so he insisted that she order tens. To make up the difference he would stuff the toes with horse-hair. Often when talking with his daughters—Cecile, Mildred, and Celeste—he would use the expression "Paregorically speaking" (parenthetically and allegorically), and Nettie always warned him that one day he would say it in public.

One of Nettie's brothers gave Mildred a Boston bull puppy, which they promptly named "Tinker Bell." The dog had been well trained and could do a number of tricks. That evening when J.B. came home and found the dog in the house he became very stern and ordered Mildred to return it the next day. Mildred was heartbroken, of course, and her mother suggested she have the dog do a few tricks for her father. In the morning Mildred put Tinker Bell through

her paces; and in performing the dog obeyed the doctor's commands as well as she did Mildred's. "Well, she certainly is smart," J.B. said. "Maybe you can keep her—but you mind she keeps out of mischief!" Thereafter when J.B. came home in the evening Tinker Bell would greet him at the door, snatch the paper from him, and tear upstairs with it to Nettie. When guests were present J.B. always showed off the animal, and if he ever forgot to ask her to perform she would tug at his arm or trouser-leg until he remembered. Tinker Bell had been taught to say her prayers, roll over, give "three cheers"—that is, she would sit up, and when the doctor said the word 'three' would bark three times; J.B. would always name five or six numbers before saying "three"—lie down and pretend to be dead, wheel a doll carriage, run upstairs and get a ball. J.B. grew so fond of the gay, small creature that she came to be his rather than Mildred's.

In 1900 the Murphys moved two blocks down Michigan Avenue to No. 3305. This house, even more elaborate, larger, and more up-to-date than their last, they bought. They bought a new team too, and besides the dainty 'Spider' carriage there was a sumptuous victoria in the stable and a stylish brougham. When J.B. left his mansion to go to his work the shining carriage awaited him at the door, his coachman, in high black-and-white boots and white trousers, dark, brass-buttoned coat, and silk hat, sitting stiffly on the seat, the sleek, knot-tailed horses waiting eagerly to be off. It was a picture J.B. liked. It had form, style, and perfection.

His classes were excellent theatre, too. From the rather small pit where the operating-table stood the seats of Mercy Hospital's amphitheatre rose steeply. Like all hospital amphitheatre seats, they were uncomfortable, with straight backs and narrow seats, fiendishly designed to keep the student awake, with never a thought to his sciatic nerves or his gluteus maximus muscles. Promptly at the appointed hour J.B. would

come charging into the pit, his coat-tails in mid-air and his intern following breathlessly behind. "You," he would say without pausing, pointing a finger at any young man he might happen to see, "come down here." Then, when the young man had descended, J.B. would indicate the patient and say, "What's the matter with this patient, doctor?" The implied flattery in his use of the word 'doctor' was enough to fluster any student. After a period of confusion and aimless examination the student might give his diagnosis, "It's a tuberculous ulcer," in a voice full of quaver and indecision.

Murphy would give the student a withering look, as if to say, "Why must all of you be so stupid?" and then would say, "Well, doctor, in my opinion that is an epithelioma. Now, why do you think it's tuberculosis?"

This would prolong the wretched student's agony, but he would give some lame excuse for having made such a diagnosis; and J.B. would say, "But *why*, doctor?" always using the formal term of address with the most delicious sadistic champ of the jaws. After much agonizing and wavering between agreeing and disagreeing with the professor the wretched student would change his original diagnosis and conform to his master's way of thinking.

"That's just where you're wrong, doctor!" J.B. then would say, "You're not here to agree with me—you're here to learn something. Now what is the matter with this man?"

In time a student learned to fight back—that was the only way. But in fighting back he had to know what he was talking about; had to be logical, furthermore, and in perfect command of his tongue. J.B. was a hard taskmaster, but yet he kept his students on their mental toes—he taught them something. These were not the usual clinical lectures; they were volatile and argumentative discussions between professor and students, with the professor taking either side of

the question. Only when a student was certain of his ground could he feel safe. The unfortunate who hesitated or bluffed was lost. Murphy would lead him on and on, deeper and deeper, and then would lop his head off with, "Yes, doctor. Yes, doctor—that's just exactly wrong! By that time your patient would be dead."

Nor could ignorance be hidden in the back rows either. He was just as likely as not to ask for the "fifth man from the aisle in the tenth row"; and the way down the steeply inclined benches was long and hard. But in spite of his devastating and dramatic methods J.B.'s clinics became increasingly popular with students. There never was any need for class roll-call. They flocked to his clinics because they learned from Murphy. Personally they might fear him, but there was not a man among them who failed to learn surgery. The time was not far off when praises of this man's teaching ability would spread far and wide, and his clinics would become a fountain from which doctors from all over the world, as well as students, would come to drink.

II

It was about this time that Nettie began regimenting his life. She would not permit him to work all hours of the day and night. She apportioned time for his clinic, time for surgery, time for visiting patients, and saw to it that he had time in the late afternoons for experimentation in his laboratory. No more night work. She insisted that he take care of himself for a change, that he guard his own health. There were frequent vacations—as many as she could persuade him to take—sometimes with her, sometimes with his friend Dr James A. Keefe, a dentist.

Keefe and Murphy met through a mutual patient, and there promptly sprang up between them one of those rare

friendships which last a lifetime. Before he met J.B., Keefe had been one of that group of professional men who shared a low opinion of Murphy. They eventually occupied offices together, and every autumn would go off together on fishing trips. Quite frequently on these jaunts into the uninhabited regions of Wisconsin, Minnesota, Wyoming, or Montana one or two others would join the party—Dr W. A. Evans, Dr David O'Shea, Dr W. P. Henneberry. In the spring they would go to Florida, Texas, or California. Of these trips Dr Keefe says, "Although they were a change for him, still they were far from vacations." It was work, work, work, correcting voluminous manuscripts he was for ever preparing, and he always carried with him his travelling library of books to be read. From the time he got up in the morning, as at home, he was an habitualist: he had his hour for rising, his hour for exercise, his hour for breakfast, his hour for study, his hours for horse-riding, for writing, for walking or fishing. Sometimes, when he was preparing a paper, he would stay in his hotel room for a week at a time, only going out for a walk in the evening before retiring. As always, whether on a vacation or not, he played hard and he worked hard. Nettie had discovered that periods of anxiety over patients, worry over the whisperings against him, or heavy physical exercise were always followed by the dreaded albumen in his urine. She was for ever cautioning him to relax, to discard his tensility, and he was for ever trying to conserve his strength, to no avail; the pace he went was his *tempo*, his speed in life, and all attempts to change it were failures. Still, Nettie did manage to make him work less and play more, even if he played as hard as he worked. He was very fond of football games, and used to attend the North-western team's games regularly, cheering wildly and flinging his arms round like a windmill.

In his lighter moments at home he was extremely amusing, especially to his daughters. In a gay mood he would put his

hands beneath his coat-tails and dance a polka the while he sang—off-key naturally:

You should see me dance the polka,
 You should see me glide the glide,
 You should see my coat-tails flutter
 As I go from side to side.

Another of his favourite songs was *Buffalo Girls, won't you come out to-night?* He still whistled *Auld Lang Syne* when he was preoccupied, and his rendering was still so poor that no one could recognize the tune. His daughters did not learn what it was until after his death, when, discussing his habits, their mother told them. His daughters considered him affectionate, but not demonstrative. His appearance—tall and bearded—was such and his dignity was such that it was not until they reached their teens that Mildred and Cecile outgrew their awe of him. Not that they did not adore him. On the contrary, one of his daughters says of him, "I never heard him say an unkind word to anyone. When we were prone to be adversely critical he would look over his glasses and say so seriously, 'Daughter, deal gently with the erring.'"

That was a philosophy he had developed out of the attacks which had been made on him. Returning good for evil, or, in the words of his mother, "killing enemies with kindness," became his *credo*. In more formal language he wrote: "The Golden Rule is the only ethical guide needed and applicable in its responsibility, first to the patient and then to the profession." He was truly noble in his outward imperviousness to the barbed stings of criticism which continued to come from his colleagues. Invariably an honour conferred upon him was followed by an open insult or by a wave of gossip. But he had known the sound of tongues too many times to pay them outward heed. Rarely was his pride shaken, but there were times when he was wounded to the quick.

He had been appointed—a really outstanding honour—

SURGEON EXTRAORDINARY

United States delegate to the International Congress of Gynæcologists and Obstetricians to be held in Amsterdam in August of 1899. His official commission was a document signed by John Hay, Secretary of State. The paper he read before the congress was entitled, "Tuberculosis of the Female Genitalia and Peritoneum." So well was he received in Amsterdam, and so loudly was his name hailed, that when he returned the American Surgical Association, an exclusive organization the members of which devoted themselves solely to the practice and teaching of surgery, invited Murphy to address them. The invitation to one not a member appeared tantamount to election to membership. The meeting was held in New York City, and on his way home to Chicago J.B. stopped and delivered the address. When he had finished speaking he was asked to wait in an adjoining room while the meeting became an executive session. It was hard to say who was the most humiliated, the man who came to tell Dr Murphy he had been blackballed or J.B. himself. One of those (now a world-famous surgeon) who sponsored Murphy's candidature says that he was turned down not because of jealousy, but because of the unbelievable brilliance of his reports. His presentations were so spectacular that several of the society's members doubted their authenticity. It was not until 1902, when his surgical reputation both at home and abroad forced the issue, that Murphy was voted to membership in this society.

III

Returning home from New York, the rebuff from the great surgeons of the East was somewhat mitigated by an invitation to preside as chairman at a testimonial banquet to Christian Fenger. It was in honour of Fenger's sixtieth birthday. Over five hundred of the leading physicians and surgeons of the Middle West attended. J.B. was only too happy to pay

tribute to his old friend and teacher, not only because they had worked together so often, but also because Fenger, too, had met much early opposition in Chicago.

J.B. was in deadly earnest when he rose and said, "We each and every one feel in our hearts a sense of satisfaction at being able to manifest our appreciation of the great and beneficent influence the teaching and life of Dr Fenger have had on the medical profession of this country. In honouring him we accentuate the ideal of the medical profession, for he has been emblematic of all that is pure, noble, and truly scientific in medicine in this district for the last quarter of a century. It would be a pleasure for me to enter into the details of the birth of modern medicine and surgery in the West—that is, medicine and surgery based on sound pathology, as signalized by the advent of Dr Fenger in Chicago.

"It would be a happiness to relate how arduously he laboured in the dissecting-rooms and the wards of the County Hospital twenty-five years ago. I must admit that the opposition to his teaching was such as would be expected with the advent of any new principle in the field of medicine. But, true to the scientific instincts of his nature, he never wavered or wearied of his task. But in time our Royal Dane gathered round him a coterie of loyal and enthusiastic County Hospital interns and a few of the attending surgeons as his devout disciples. From this nucleus the sphere of his scientific influence spread until it comprised the profession of a continent, as manifested by your presence here to-night. The spontaneity of this gathering is an index of the high esteem in which he is held by the profession."

Work and study, work and study, work and study, and the results will speak for themselves. J.B. did not put that into so many words, but he lived it. Paced as he was, it required little effort on his part to stay ahead of the pack. He didn't see why he should stop and wait—and he didn't.

Before the American Medical Association meeting in Columbus in 1899 he had discussed the conservative treatment of tuberculosis of the testicle. This marked the opening of a new surgical field. This paper was followed in the next four years by "Further Advances in Renal Surgery and Traumatisms of the Urinary Tract." In another paper he detailed a case of tetanus (lockjaw) treated by injection of morphine-eucain and salt solution into the spinal canal, and he suggested that cases of meningitis might be treated by drainage of the cerebro-spinal fluid from the ventricles of the brain and the spinal canal—a method in use to-day. He became interested in the scars which followed the radical removal of the female breast for cancer and made valuable suggestions for their prevention. He described a new physical sign for the diagnosis of gall-bladder disease, and promptly was accused by Frank Billings, a colleague in Chicago, of having stolen it from him when they had met in consultation on a case in Billings' office. He got young Victor Schrager, a new associate who worshipped him as a son, interested in performing experiments to study the regeneration of peripheral nerves when their cut ends had been united.

Having had discouraging experiences with the publishers of scientific periodicals, and believing that publications concerned with surgery should be edited and managed by practising surgeons, J.B. encouraged his friend Dr Franklin Martin to launch the surgical journal, *Surgery, Gynecology, and Obstetrics*. Among the first articles published were those dealing with his work in spinal cord and peripheral nerve surgery. Truly J.B. was never lacking in ideas, and he worked like a demon on whatever seemed worthy of his time and attention.

Meanwhile, through the Society of Clinical Surgery, of which he had been made a member, J.B. was associated with such young surgeons as William and Charles Mayo, Harvey Cushing, George W. Crile, and others who were rapidly

gaining fame. This esoteric organization had been conceived in 1900 by William Mayo, A. J. Ochsner, and Harvey Cushing during their attendance at the International Surgical Congress. These young progressives had an idea that through meetings held at the clinic of each member new findings of surgical diagnosis and therapy could be exchanged. It was obvious to them all, after the first few meetings, that surgical technique was far from being standardized as they thought it should be. They saw very good and very bad surgery. Assuredly there was a place for an organization such as theirs. Their group was to be kept small and their exchange of ideas free, so that the cultivation of friendships was no small part of the function of this young, exclusive surgical club, the members of which looked upon most members of the American Surgical Association as fossilized remains. They were so sure that a surgeon's best years were before the age of fifty-five that they created a senior list to which they relegated the 'old' men. Somehow their ideas of age changed as they grew older, and those still living will probably tell you that a surgeon's best years are those when he gets some sense—that is to say, after sixty. The society was not without its lighter moments. Its members were addicted to the writing of verse, and Murphy's swallow-tailed morning coats and light-coloured waistcoats came in for their share of good-natured ridicule.

That was in 1902. At this same time a group of surgeons in Chicago—J.B. among the number—gathered to organize the Chicago Surgical Society. Two years later he succeeded Christian Fenger as president. Almost simultaneously the University of Notre Dame conferred the Laetere Medal upon him with the citation: "You have joined to science the quality of charity and have always been mindful of the reverence due to the body as the Temple of the Holy Spirit."

Thus he was contributing handsomely to the knowledge of medicine and surgery; he was in the front rank of young

American surgeons; he had been the recipient of a succession of honours from both Europe and America; but through it all the Chicago Medical Society, to which all physicians in the county belonged, refused Murphy membership. Stories of the exorbitant fees he charged and his methods of collecting were told and retold to succeeding membership committees, and were exaggerated beyond all recognition of the facts. As an example, one of these fabrications said that he had been called to a home in a poorer section of the city for consultation in the case of a child desperately ill. Other surgeons, colleagues of his, had preceded him, it was said, and had advised against operation. These ethical gentlemen, it was sworn, had charitably given their services; but Murphy, before he would so much as examine the child, had insisted that the parents break open the baby's bank and pay him his fee. General practitioners were vehement in their stories of his having stolen patients from them when they had called him in consultation. This latter was a common complaint, which J.B. answered by saying, and very logically, that no doctor ever stole a patient from another. In the end, he said, the patient sought the doctor who gave him more relief or cured him—in other words, the best doctor.

And so the Medical Society, by excluding J.B., continued to disgrace itself year after year, until at last the situation became ridiculous. Public opinion, the man's honours, his recognition both national and foreign, made excluding him any longer a farce. He was asked to join. Most men would have refused, but Murphy accepted—that was his nature and his philosophy. And so the prophet was recognized, although grudgingly, in his own country. But to gain this recognition he had had to go out and bring the world in. What happened at 3305 Michigan Avenue is not known, but one can imagine the happiness of those two people who had been so long waiting for this capitulation, who had borne the past slights with such dignity and patience.

IV

A sick doctor is just about the most wretched individual in the world. Perhaps this is because the layman has his doctor to lean on, while the doctor, knowing the idiosyncrasies of disease, the fallibility of drugs, and the vagaries of human judgment, has every right to be apprehensive.

J.B. awoke one morning with severe pains in his left shoulder and arm. Operating became impossible, and Nettie promptly bundled him off to Colorado for the baths at Glenwood Springs. A diagnosis of neuritis was made, but the patient was not satisfied that it was correct. The baths gave him little relief, but suddenly after ten days the pain disappeared. As to all men it must, there came to him doubt—doubt that he knew anything; doubt that the medical profession had made any progress at all; doubt that he had the slightest knowledge of what life was about. As do all men in such a dilemma, this red-bearded Irish doctor knitted his brows above his blue eyes and sought comfort in the vague salve of philosophy. During these days of relief and relaxation he read Morley's *Life of Gladstone* and was greatly impressed. On the margins of the book he made pencilled notations.

"Write some day of the great men of genius who had no early book training." Was he, who held himself so sternly to one educational path, longing for the benefits of a broader and more varied culture?

And again: "Medical knowledge, as other knowledge, is worth little until one has made it so perfectly one's own as to be capable of reproducing it in precise and definite form. Knowledge is of little value to the possessor or the public unless it can be applied to the relief of individual suffering or infirmity."

Writing on margins and scribbling on slips of paper was a favourite pastime of his. Elsewhere such a simple philosophy

as the following might crop up: "Go forward slowly. It is easier to go forward than to go backward." And the following (evidently notes for an autobiography) was found on the fly-leaf of a medical book: "Influence of mother; influence of teachers and boarders; influence of Prof. Schmidt; integrity—fidelity to principle and indifference to show—moral philosophy; influence of debating society."

As long as J.B. stayed away from Chicago he kept out of trouble; avoided slander. But as soon as he and Nettie returned home the tongues recommenced wagging. Again he became an object of derision by lending his influence in aid of a cause that was none of his personal concern. It came about in this way:

Nettie's brother, Charles Plamondon, was a trustee of the city's public school board. He appealed to J.B. for help in a fight which had begun while J.B. and Nettie were in Colorado.

"J.B.," Nettie's brother said, "I need some ammunition to fight the idea of segregating the crippled children in the public schools. Your friend Dr Walter Christopher has some strong backing to erect a separate building on the plea that deformed children suffer discomfort in the present school-rooms because of the lack of proper facilities and from the ridicule of their playmates. Here, I'll read you what Christopher says: 'Children are more or less barbarous—they will not have the feeling of sympathy for the deformed that adults possess. They will sour the disposition of the cripples with their ridicule and make them oversensitive of their deformities.' The fact that Christopher is a children's specialist makes that sort of thing carry weight."

One would think that Murphy, knowing his attraction for

trouble, would have patted Charles on the back and said, "You'd better leave me out of this. My name on a thing like this will do you more harm than good—at least, it'll do me more harm than it will your cause good." But he didn't say that. Her permitted himself to be led into the public argument against a colleague. He said, "What's your idea, Charlie?"

"I've got to have facts from some well-known doctor, J.B., with which to refute Christopher."

"But I don't know the facts, Charlie. I'm not familiar with the thing."

"I've brought out all the reports of the hearings. You can go over them. You'll see that the idea, if carried through, will bankrupt the board. Why, one fellow wants to put up twenty one-story school buildings in different sections of the city—just for the crippled. It's insane, J.B."

"All right; I'll see what I can do to help you."

J.B. was loyal. He would do what he could for his brother-in-law. One can be certain that Nettie had much to say on the side of the question represented by her brother; no doubt she became very much interested, informed herself of Charlie's plans and ideas, and was eloquent on their behalf. It was the sort of issue that interested her and on which she could talk with authority. No matter, though, how it came about, the fact is that J.B. was drawn into writing a letter to his brother-in-law for use in the campaign against separate schools for crippled children. This was the letter:

Tuberculosis of the bones of children does not admit of transmission to other children. The deformities resulting from paralysis are not produced by contagious lesions.

It seems to me decidedly against public interest and public education to ostracize these children by placing them in a school for the crippled and infirm. It should be desirable in educating the children of America to teach them that the infirm

must be cared for and encountered and sympathized with in our everyday life, and that they are not to be herded or segregated or confined as lepers and criminals, and that the healthy and strong children should by daily contact with the infirm cultivate for them a sympathy, love, and desire to protect them and assist them in every little detail of life, that when the young develop to be strong men and women they will have that feeling instilled in them with their earliest impressions. It seems to me against public policy, against every principle of higher education, against every sentiment of humanity, to ostracize these crippled children that are not suffering from contagious or transmissible diseases.

I would, therefore, very strongly oppose the misguided though honest and sincere efforts of those who are endeavouring to have a special school for crippled children. If my child were crippled I would resent to the last extremity this barbarous treatment of my child. My sentiments concerning the crippled child of my neighbour are exactly the same; and these crippled children will receive in the public schools the kind consideration, encouragement, and support that they are entitled to from their classmates, and are safer than they would be if they were associated with no other than crippled children, each of whom was an object of pity.

Whether he was right or wrong is of no matter. He was sticking a sore nose into the crack of a door that was about to slam. Those who read the letter, which was published in full by the newspapers, probably got the impression that J.B. had poked his oar into the fight against segregation of his own free will and accord. At the hearing which followed many mothers testified voluntarily that their children would be far happier safe from the ridicule of their healthy playmates. J.B. was attacked because of his obvious inexperience in dealing with the educational problems of healthy or crippled children. The result was that J.B. and Charles Plamondon lost and the Spaulding School was erected for the exclusive training and education of physically and mentally deficient and crippled

children. Thus once again J.B. had been drawn into a public squabble on a matter which did not greatly concern or interest him. And once again, as in the McGarigle case, his colleagues jumped on him with both feet. They pointedly asked upon what experience or facts he could base all his arrogant, self-opinionated statements. Would he say he was even qualified to speak on the subject? All those who did not like him personally claimed he had thrown himself into the school fight for the sake of publicity. Once again J.B. had left himself defenceless. Would he never learn?

Strangely enough, one of J.B.'s severest critics was instrumental in pulling him out of the fire. Rush Medical College had recently become affiliated with the University of Chicago. William Rainey Harper was president of the university. On a recent trip abroad he had had his eyes opened to Murphy's prominence in the surgical world and to his reputation as a teacher. Always on the alert to add distinction to his faculty, when the chair of surgery became vacant Harper decided to woo Murphy back to his Alma Mater. Meanwhile Frank Billings, after a violent disagreement with North-western, had joined the Rush faculty. Billings positively despised Murphy. So when Harper approached Billings on the question of getting the Irish surgeon to head the department of surgery Billings hit the ceiling. "I'm the last man in the world you should ask to help you do this, Mr President," Billings said. "I don't like Murphy's methods and I don't like him."

"But you do admit he's a great teacher and a great surgeon, Frank?"

"Yes, I do, damn him! He's the best in town."

"That's why I want you to go with me. Murphy'll be complimented by your frankness and by your admiration of his ability. The Rush crowd is the one he wants most to win over. And, primarily, he's the man to make our department of surgery, and all of us know it."

After dining together Harper and Billings drove out to Murphy's home. There was no feinting with nicely rounded phrases. They had come, they said, to offer him the chair of surgery at Rush. Would he accept it?

Meanwhile Nettie, unable to contain her curiosity, had seated herself on the top step of the stairs, and, unseen, was listening to the conversation in the living-room. Although she could not see the visitors, she identified them by things they said. She was well aware of the spirit of unfriendliness towards J.B. which existed at Rush. She was not at all inclined towards her husband's accepting such an offer, believing it spelled bitterness, bickering, and unhappiness. But J.B., on the other hand, flattered by the invitation, was considering the proposition seriously. Afraid that he would commit himself before she had a chance to talk with him, Nettie could contain herself no longer. From the darkness of her retreat she called down to him, "J.B., please don't give the gentlemen your answer to-night. Sleep over it."

At the sound of her voice Harper's heart must have sunk. She was well known as Murphy's mentor and was regarded by many as a meddling shrew. But J.B. was grateful to her. He stepped into the hall and called to her, "Come down, Nettie. I want you to meet Frank Billings and President Harper." Then he turned to his visitors. "You see, gentlemen, Nettie and I always discuss important decisions, and I depend on her judgment a great deal. May I let you know my answer to-morrow?"

Nettie contained herself until the front door had closed on the visitors, and then she pleaded with her husband—begged him not to accept their offer. She pointed out the fact that Billings was no friend of his, was even an active enemy. She sensed the fact that Billings had to act as Harper wanted, and she was keen enough to see that for that very reason Billings would be the more unfriendly.

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J.B. was pleased and flattered by the offer and thought he saw a way of winning over the enemy. Bevan was on the faculty at Rush and a candidate for the chair. Why not ask that they share the honours, that Bevan be appointed co-professor? Such a request would disarm the opposition.

Nettie recognized this master-stroke. She had to admit that it might heal the breach for a time, but she still did not like the idea of giving up his position at North-western, where he was quite happy. "I feel it's a great mistake," she warned him.

"I don't think so," he said; and then she knew he was going in spite of her. Fenger was still head of the department of surgery at North-western and seemed likely to remain so for some time. J.B. saw an opportunity not only to placate his enemies, to win them to his side, but to raise his rank. "I think I'll take it," he said.

CHAPTER XV

PRESIDENT HARPER of the University of Chicago acceded to J.B.'s terms for acceptance of the professorship of surgery at Rush, and Arthur D. Bevan and Murphy jointly held the chair of the department. Fenger had joined Nettie in advising against acceptance, but for different reasons; he had pointed out that J.B. was his logical successor at Northwestern. But the far-away fields seemed greener and the promotion was at hand.

J.B. began his teaching duties with enthusiasm, and soon his clinics at Rush were as popular as they had been at Northwestern. But, as Nettie had warned him, in spite of his intense efforts to become a part of the Rush family, he continued to be regarded as an outsider—one who was in a different social and professional caste. He decided against giving up easily; he had obviously made a bad bargain and foolishly decided to hug it the tighter. If he couldn't win them over he had kept his appointment at Mercy Hospital, and he could always return to the hospital, regardless of Northwestern's attitude towards welcoming a prodigal.

Not long after he had transferred to Rush, just as it seemed he might be free from adverse publicity (which meant publicity of any kind), just when it seemed he might be winning his fellow-teachers to friendship, something else happened. Nine people out of ten who read *The Chicago Tribune* for October 17, 1904, were unmoved emotionally by its contents. There were advertisements for many patent medicines, including Peruna, and for a score of quacks who advertised cures for fistula, piles, and other common ailments. The

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Tribune had not yet attained the prestige it has to-day; it had not got religion, so to speak, and there was no health editor. Running through it, the readers came across a story entitled, "How does a Girl Get into the Chorus?" and another which described how one R. G. Ponsonby Carew-Poole was elevating Americans to the peerage, and how, through "The College of Heraldry," he was supplying them with coats-of-arms—all of this, of course, for a consideration.

These stories were there, and many more; and the average person read the paper and threw it away without further thought. But on that Monday morning there appeared an article which cast consternation and indignation into the medical ranks of Chicago. The article reported that a decoy letter had been sent to one hundred surgeons in Chicago (some wag remarked that the editors had flattered the profession by placing the number so high), asking them their views on the age-old question of fee-splitting. The letter follows:

MY DEAR DOCTOR,

I have a case under my charge which requires attention along your line of work. I am quite sure of my diagnosis, but will leave the whole matter to you. The people have heard of you favourably and are inclined to go to you for treatment. As they are wealthy they ought to pay a good fee for the services. Now, doctor, you understand that I am a young man just starting a practice, and in small towns we cannot make any distinction between the rich and poor in the matter of charges. I have only received my regular visiting fee in this case. I understand, however, that it is customary for physicians to pay a commission of 25 per cent. upon all referred work, and I will deem it a favour if you can take care of me in this matter.

Kindly let me hear from you by return mail as I am anxious to bring the case to you at once if satisfactory arrangements can be made.

Yours truly,
J. C. EVANS, M.D.

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The practice of fee-splitting, as old as the practice of medicine, has always been a bone of contention among surgeons. The patient pays a surgeon a fee for an operation, and the surgeon, in turn, gives the doctor who referred the patient to him a part of that fee. Thus it is that commissions go up according to the amount of competition; the result being that the patient often receives the services of the highest bidder rather than the best surgeon.

At the time the public may have suspected that some such system of paying commissions was being practised, but there never was any proof of it; even doctors, realizing the unethical aspect of the practice, pretended to know nothing of it. But now, to have such a low habit publicly hung about the sacred neck of medicine, to have it broadcast through a newspaper—that was more than doctors could tolerate. It was an outrage! What doctor could have been so base, so foolish, so indiscreet?

The article in the *Tribune* went on to report the answers that had been received. Eighteen doctors had accepted the proposition; twenty-six had declined; and fifty-six had not replied. Among those who declined the proposition in no uncertain terms was Dr J. B. Murphy. His answer was: "I believe you have simply been misguided—you do not realize what an outrage it would be if cases were peddled out in this way by the family physician." That would seem to clear him definitely and irrevocably, especially when it is known that one man replied, "Bring on your patient, and I will do the best I can for him and for you," and that others agreed to pay as high as 20 per cent. But not a bit of it. It was learned that prior to publication of the story J.B., as President of the Chicago Medical Society, had been shown the replies. He had gone to the managing editor of the paper and had pleaded with him to suppress the replies, but the powers-that-were at the paper declined because of their great

news value. As a last resort J.B. then persuaded them to hold up publication until explanations could be furnished and published simultaneously. This was done, but the explanations were decidedly on the weak side. One said, "I knew it was a fake, but if the letter was genuine I wanted to see the man, because one can't write about such things. It was an old trick which did not fool me." Another explained by saying, "I only wanted him to bring the patient to me as he said the patient had heard of me." And yet another said, "I knew it was a hoax the moment I got the letter, and thought I would lead him on to see what resulted."

But all those who had accepted the proposition were in a critical position: their careers were at stake. They were out quickly looking for some one to blame. All the other doctors in Chicago were ready to tar and feather the one responsible for bringing ignominy and disgrace to their profession. Looking for a victim, they first picked on Dr J. Frank Lydston, prominent in the affairs of Chicago medicine, who three years before had started an acrimonious discussion within the Chicago Medical Society on the subject of fee-splitting. He had intimated in no uncertain terms that some of those who openly opposed the practice were dividing fees secretly, and he challenged them to deny it. He was quoted as saying he did not instigate this particular *exposé*, however, and that he did not approve of the methods used. Every one, miraculously, believed him. All right, if Lydston hadn't done it, who had? Some doctor surely: a layman wouldn't have known how to word that letter so cleverly.

The following day there appeared in the *Tribune* a follow-up story with statements by Dr J. B. Murphy and Dr J. Clarence Webster. J.B., in his official capacity as President of the Chicago Medical Society, again let himself in for trouble. Instead of a dignified denial that reputable physicians and surgeons resorted to such practices, which was what the

society's members wanted him to say, Murphy is quoted as saying:

It is a solar-plexus blow. The paying of commissions is the most vicious, pernicious, and outrageous practice to which the doctor can resort. I have been afraid that this matter would have to be made public some day. It is too bad we have not been able to stamp it out ourselves, but publicity is the cure for evil. Let it be known that a physician is soliciting patients by paying commissions and he will at once lose the confidence of the people.

Let us see why the practice is meretricious. It means that the patient is being betrayed by the one in whom he has implicit confidence—the family physician, the man who should have his interests most at heart. It means his life is being auctioned off to the man who will pay the largest premium. It is not the money loss to the patient that makes the practice so wrong. No! It is the idea that his life is being jeopardized and that instead of being sent to the best man in his particular line he is sent to the highest bidder, who may be a man with an abnormally large mortality record among patients.

It was a tactless statement for a man of J.B.'s standing to make. It was boastful in that it put himself above such petty and underhand practices; it was dramatic; it was addressed to the public rather than to doctors. A large majority of the doctors in Chicago resented it. Murphy was living up to his reputation as an opportunist; he was taking advantage of this very unpleasant situation to push himself forward.

It is not surprising, therefore, that before the next meeting of the Chicago Medical Society on Wednesday, October 19, there were threats of impeaching the president. It was J.B.'s second meeting as president. He was not ill at ease in the least when he took the chair to open the meeting. The regular scientific programme was completed and the business session begun. Contrary to the usual custom, no one left the room.

Suddenly one of those surgeons who had promised to "take care" of the young country doctor rose.

"Mr President!"

Murphy recognized him.

His face flushed, his short, stocky body bristling with antagonism, the man on the floor cried, "I wish to propose a vote of thanks to the distinguished gentlemen who have presented their papers to us this evening. I should also like to move that our president be thanked for the personal notoriety he has gained in the newspapers and the disgrace he has brought upon the members of this society!"

J.B. didn't hesitate a minute. "Do I hear a seconder to that motion?" he asked.

A dead silence followed. The anger-flushed man on the floor looked about him for help. No one moved.

The president waited. Then after some time he said, "Without a proper seconder the motion is lost. Is there any other new business?"

"I move, Mr President," the irate member cried, "that the society consider the recent newspaper exposure of commission-paying by its members!"

"I'm sorry, sir," the president said, "but your motion is out of order. According to the by-laws of the society such matters must come before the council and are not within the province of the society in an open session. I now declare this meeting adjourned."

And so it was adjourned—officially. But not without protests from disgruntled members. Amid a great hubbub they withdrew to the lobby of the Public Library to hold a meeting of their own. It was the opinion of many, and they stated it quite openly, that J.B. had tricked them. Certainly he must have conceived the idea of sending out those letters, and in all probability he had dictated the terms of the proposition. They pointed out that his own reply had been in the form of a

lecture to young doctors and served to put him in a favourable light with the public; but didn't they all know for a fact that Murphy divided fees? Although they had no proof of this charge, and there was none, yet in their anger they satisfied themselves with the old adage: "Where there is smoke there must be fire."

The battle did not cease with time. The next meeting of the council of the Medical Society was held on November 9 at the Chicago Athletic Club. It was the custom to hold these meetings where a dinner could be had and business discussed over a stein of beer. A heated discussion arose over the question of the published letters. J. Clarence Webster, Palmer Findley, William H. Wilder, Emil Reis, and other doctors addressed the council. Murphy was accused to his face of having written the baiting letter. He did not reply to the accusation, and in the embarrassed silence which followed Frank Billings moved that the matter be referred to the committee on ethics. This committee, an elected body, consisted of Wilder, N. S. Davis, and I. N. Danforth.

On December 14 the council met again in the Union Restaurant. Again the fee-splitting letters were the main topic of discussion, but bitterness was so rife that it was necessary to adjourn until the following week. At this meeting the members of the council attended to a man. Previously the secretary had been instructed to write a letter to the chairman of the committee on ethical relations and make such charges as might be necessary regarding the publication of the medical graft letters in *The Chicago Tribune*. Acting as a committee of the whole, the council appointed a second committee of three to draw up a statement of facts in connexion with the decoy letter and the answers which had been published. This committee was instructed to present all the data and their recommendations.

None of the committee members could get anywhere with

the *Tribune* editors. Upon several occasions newspapermen have gone to gaol rather than divulge sources of information. It was not until Murphy threatened to take legal action to vindicate himself that the newspaper's barriers broke down. It then became known that the instigators of the plot were two members of the Chicago Medical Society, who, in a sincere and honest belief that fee-splitting was disgraceful, dishonest, and was being practised in a widespread manner, had concocted the letter with one of the *Tribune's* young reporters, George Odell. Furthermore, these doctors had specified the men to whom a copy should be sent. With the active imagination and grim humour of a newspaperman Odell had mailed them from Odell, Illinois.

At a meeting of the entire society, presided over in Murphy's absence by Dr Rudolph W. Holmes, the report of the committee on ethical relations was read. Now, surely, with the naming of the two guilty doctors, Murphy would be cleared of any and all blame. But that was not the case. He was criticized openly and vehemently for not having stopped publication of the letters. One gentleman moved that they should accept the report; another that they should accept only the conclusions; and a third offered an amendment to the effect that all matters pertaining to the president of the society be eliminated. All were lost in a mounting confusion of ideas, speeches, and parliamentary law procedures, at which doctors are notoriously bad. As the meeting went on in its chaotic way the council became more and more panicky. Finally a motion was carried to eliminate all reference to any individual other than the two members against whom the principal charges were made. But eventually the entire matter was dropped at the suggestion of the temporary presiding officer.

The tragic part of the whole storm in a tea-cup is that the attack on fee-splitting was a boomerang. The two reformers were forced to resign from the society and eventu-

ally left Chicago to start practice elsewhere, while nothing whatever was done about the surgeons who expressed their willingness to split fees. One of them was the *Tribune's* managing editor's own surgeon.

After having every council meeting of his entire term of office as president occupied with the question of fee-splitting, it was natural, perhaps, that Murphy's speech at the annual meeting of the Chicago Medical Society should deal with the same subject. Unable to attend because of illness, his speech was read for him. In it he wrote:

The moral and ethical standards of the profession are the most valued heritages of the doctor. They are the result of centuries of careful consideration of and respect for the medical profession by the public and its members—which have never been betrayed by the vast majority of that body of noble men. It behoves you, as members of this body, to see that the highest standards of morality and ethics are maintained. You must and will, in no equivocal terms, properly brand the sophistries of commercialism which may form a cancer to destroy the birthright and inheritance of the medical profession.

CHAPTER XVI

THE old pain in his left arm became aggravated again, probably because of the strenuous year he had just passed through. There were days when he could operate with the old vigour; when in making his rounds he would pop in and out of his patients' rooms, the while keeping up a series of rapidly fired questions to his assistants and interns as to their progress. But there were other days filled with suffering and inertia. At these times Nettie had to use all her persuasiveness to make him stay in bed at home. He became depressed about any number of things, of which his condition was but one: he was not happy at Rush, as his wife had known he would not be; then there was the criticism he had had to face regarding the fee-splitting letters; also he had no particular problem of surgery to fascinate and absorb him.

None of the doctors J.B. had consulted had been able to diagnose the ailment; no one seemed to know what caused the pain. As he described it, it was an unbearable pain, running down his left arm and into the fingers; and with the pain came fits of morbid depression.

There were few rays of sunshine those days, either in Chicago skies or his own spirit. Occasionally, though, a friend would come to see him or would do something nice for him and he would be cheered. On one occasion he had a letter from Dr William Mayo which pleased him. It was pathetic the way he reacted to friendship.

Mayo wrote: "Why don't you come up here and stay with us? We have a lot of things to show and tell you. We are getting some new ideas which will prove interesting, if nothing

more." How could J.B. know that Nettie was responsible for the invitation; that she had written to Mayo suggesting it?

Pleased and happy over Mayo's letter, J.B. discussed the visit with Nettie, but although she urged him to go, he did not. The reason he gave was that he had a paper to prepare for the coming Portland meeting of the American Medical Association.

The paper he was preparing was entitled "The Superior Accessory Thyroids" and dealt with the rapidly increasing surgical treatment of goitre. Before he finished it, however, he and Nettie went back to Glenwood Springs, Colorado, so that he might get more baths. His old friend Macalester, who had sent him on to Las Vegas at the time of his tuberculosis scare, had prescribed ten minutes daily in Cave Number Three. When the day came for his paper Nettie telegraphed the chairman of the American Medical Association meeting, asking that Murphy's paper be read by title.

While they were in Glenwood Springs J.B. received an invitation to attend a banquet in honour of Nicholas Senn to be held the following month. The invitation also asked him to "intersperse the programme with reminiscences, anecdotes, etc., as the spirit moves." It seemed strange that he should be invited to attend a banquet to Senn, inasmuch as they had been polite enemies for several years, but to ask him to address the banquet—well, that was downright incomprehensible.

"You won't go, J.B.?" his wife said.

"I think I will," he said. And she shook her head. He was as unpredictable as ever.

After ten days of complete rest the pain in his arm disappeared as suddenly as it had the time before. The next day they were on their way home. He appeared at the Senn banquet, filled with nice things to say about a man who had been so rough on him at times.

SURGEON EXTRAORDINARY

"If I were asked," he said, rising to his introduction, "what Dr Senn has done in his life to deserve this magnificent tribute from the medical profession of his own time I would say, not that he has built up a Senn school of surgery, not that he has organized a devoted band of personal followers through his personal magnetism. No, there is no Senn school of surgery—there is no admiring band of blind followers. His influence extends beyond any horizon encompassed in these expressions.

"By his thirst for a knowledge of the laws and principles which govern the art of healing, by his example in original experimental research work in surgery, he has founded a school of scientific investigators, a school of pathfinders in the wilderness of science, where his influence in advancement will be carried beyond the age of Senn and the century of Senn; indeed, advancing as long as they adhere to the Senn principles and the Senn example of observing Nature's methods and processes and recording them exactly as Nature presents them. He has founded and fostered a system of principles of more lasting influence than a school.

"Who has read of Senn's experiments on the pancreas without feeling admiration for the work? Who has followed the details of his study of the repair of blood-vessels without appreciating the acuteness of his mind? Who has reviewed his description of bone repair without feeling that he was having a refreshing draught from Nature's fountain of knowledge?

"What a blessing and privilege for the surgical youth to have sat at the feet of the great master! His burning desire for knowledge has been an incentive to every aspirant for distinction. His indefatigable labour has been a beacon and guide to the harbour of medical attainment. His love for science was saturated with the absorption from ancient and modern literature of all that was good. He advanced beyond his predecessors by closely observing Nature's mechanism

of repair and applying these experimental observations in his practice. . . .

"In his obligations to the medical profession," J.B. went on to conclude, "he has lived well up to and even surpassed the exacting requirements of Bacon, who holds 'every man a debtor to his profession, from the which, as men of course do seek to receive countenance and profit, so ought they of duty to endeavour themselves by way of amends to be a help and ornament thereunto. This is performed in some degree by the honest and liberal practice of a profession, when men shall carry a respect not to descend into any course that is corrupt, and unworthy thereof, and preserve themselves free from the abuses wherewith the same profession is noted to be infected; but much more is this performed, if a man be able to visit and strengthen the roots and foundation of the science itself; thereby not only gracing it in reputation and dignity, but also amplifying it in perfection and substance.' "

His mother would have been proud of the way he had learned his lesson. Certainly that was returning good for evil, "killing them with kindness." Nearly every one present knew of Senn's outspoken antagonism towards Murphy, of his denunciation of Murphy's work. They could not help being amazed at the younger man's eulogy and at his sincerity. His enthusiasm prompted one doctor to remark to another, "He spoke more as if he meant it than any man here." That was true. Having decided to praise Senn, J.B. gave his speech everything that was in him. "You're never conscious of his having a paper in his hands," the other doctor said.

"In spite of everything," the first doctor said, "there are times when I feel like cheering him, and yet I don't believe he means one single damned word of it!"

This was the consensus of opinion. But Nicholas Senn was touched. When he clasped J.B.'s hand there were tears in his eyes.

In spite of the antagonism of the many, J.B. had a few medical friends who were as staunch as his critics were busy-tongued. One of these was Dr Norman Bridge, a fine physician who had proved himself such a shrewd business man that he had retired to California. It was by following Bridge's advice on investments that J.B. was able to pile up a considerable part of his fortune.

Although he was frugal, J.B. was a notoriously bad business man. His interest lay in his work to such an extent that he would discuss business only when Nettie and Bridge cornered him. It was his idea that a man should save as much of his income as possible by living well within it, and put the surplus in a bank. The poverty of his youth came to frighten him, and so difficult was it for him to discuss business dealings that Nettie insisted he dictate all his letters to his secretary in the evenings at home in her presence. In this way she was able to acquaint herself with his business affairs. This system she had decided upon after J.B., with his friend Keefe, had invested and lost 20,000 dollars without her knowledge in a new baking-machine. J.B. insisted that the whole transaction was pure fraud and that the court's decision would be in their favour. Not so optimistic, Nettie proved to be correct, and so when J.B. received a letter concerning business from Bridge he discussed it with Nettie.

What I said in my letter to you about the American Petroleum Company and your personal privileges is still true, and the bonds are still in the bank. You can have them by paying par and interest, and it is a mighty good investment.

They agreed to take Bridge's advice, and bought the bonds. They proved a good investment, and the Murphys fell to taking Bridge's advice on other investments. In return for

this J.B. wrote the retired doctor and gave him news of progress in surgery. On J.B.'s side this friendship with Norman Bridge was a financially successful one. He often referred to Bridge's "ripe and extensive experience as a coupon-cutter."

And so it was that the Murphys found themselves growing rich. American industry was growing so rapidly at this time that a dollar invested in any sound organization would in a few years multiply several-fold. As their wealth increased Nettie expanded their social activities. It was decided to send the girls to a finishing school in the East. Then, as now, to Chicago the East was fashionable, and Nettie was ever one to do the accepted thing. She felt that now J.B. should have other interests than his work, if only for the children's sake. They should read good books and know music; they should not seclude themselves so much, but seek the society of others.

She said that they should take a regular box at the opera and go to the symphony concerts. But J.B. said he didn't know anything about music and that, furthermore, he didn't care. Surgery was his music and his reading and his laughter and his relaxation. He had no time for opera.

They bought a box at the opera, in spite of J.B.'s teasing his wife by saying that she just wanted to dress up and sit in the horseshoe and be seen. She knew he was right, but she knew, too, that he liked to be seen in public with her. There was no doubt as to her beauty. Maturity had given her a stately grace, given her fine head with its high-coiled, jet-black hair a look of breeding and pride. J.B. had always appreciated her good looks, and the fact that they were pointed out as "Dr J. B. Murphy and his beautiful wife" was good publicity for him too.

So they entered the smart social life of Chicago, thereby leaving themselves open to accusations of social climbing, and it was not long before arrows so labelled were shot at them. Here, then, was the same old game, but this time

played by a new line of critics—laymen all—who set themselves up as arbiters of those eligible for the local social register. Nor were the arrows confined to gossip. They became a target through a magazine called *The Club Fellow and Washington Mirror*, published in the nation's capital. To-day the paper would be called a scandal sheet, but its mast-head proclaimed it as being "The National Journal of Society." Its Chicago correspondent was anonymous, and very successfully so—in fact, investigation to-day fails to disclose who he or she might have been.

Each succeeding barb irritated Nettie and J.B. more than the last. In desperation he finally complained to his patient and friend John Eastman, then publisher of *The Chicago Journal*, now defunct.

Unfair and uncalled for as the items were, still there was no defence open. J.B. said that his professional activities had been attacked time and again, but he did not propose to stand idly by and see his wife and daughter attacked by a coward afraid to write under his own signature. Eastman's influence was soon felt. Percival Hardin, editor of the *Mirror*, wrote Murphy a letter which remains a rather weak attempt at placation. In it he promises to be a good boy in the future:

I have just heard through my friend John Eastman of your devotion to him after his accident last fall, and being desirous of showing you that I appreciate what you did for him, I have, at his request, ordered our Chicago correspondent to discontinue all satirical references to various members of your family.

It is needless for me to assure you that personally I have always held you and your family in the highest esteem and that I would not at any time have done anything to injure your feelings. The comments made in the *Club Fellow* are, as a matter of fact, in the line of pleasantries, for we all know that it is necessary to have a little amusement occasionally at the expense of somebody.

SURGEON EXTRAORDINARY

Mr Eastman has no claim on me of any description and the request he has made is merely in the line of showing his gratitude to you. Being confident that he would do as much for me under similar circumstances, I have informed him that I shall comply with his request, and I take this occasion of assuring you once more of my highest personal regard.

I have been familiar for some time with your generous work on charitable lines and have always regarded you as an honour to your profession.

Assuring you that no unkindness was intended in any of the little pleasantries heretofore printed, I beg to remain . . .

J.B. replied:

DEAR MR HARDIN,

Your letter of February 4th is received. On behalf of myself and family I thank you for the expressions therein and will appreciate the consideration promised in your letter. Through you I wish to extend to my friend Mr John Eastman thanks for his unsolicited interest in this matter.

A professional man's position is a little different from that of the average business man, and his personal character, family life, and social position, particularly the first, are of the highest importance—except his professional attainments—in determining the confidence and respect of his *clientèle*. Therefore, these little "pleasantries," as you call them, are more detrimental than you consider them from your viewpoint, as a doctor is never a public character, no matter how well known he may become as a professional man. You can see, therefore, that there are special reasons why it would be desirable that these articles should not appear. . . .

Having thus got under way in the rôle of philosopher, J.B. felt in the mood to extend a bit of advice to his eldest daughter, who was attending the fashionable Miss Spence's School in New York City. In it he recorded (one of the few instances in his life that he so expressed himself) his attitude towards the whispering which surrounded his professional

life from its beginning until his death. In this letter to his daughter his English becomes extremely involved. This was commonly the case—so much so, in fact, that irascible old Dr William Quine, in speaking of the ability of various Chicago surgeons to deliver a scholarly address, remarked that J. B. Murphy was unable to write a sentence in straight, simple English, much less deliver a speech.

MY DEAR CECILE,

I feel, my dear, that you should not permit Miss Baker to get on your nerves. You must consider that she is a spinster and knows very little about the real nature of girls, is getting in that peevish age that overcomes so many disappointed lives in which they disturb and make others unhappy in order that they may have better company and endeavour to balance their own minus account against the rest of the world. That, however, does not concern you except that you have permitted her petty annoyances to disturb your mental poise.

I feel that to do your best work you should throw off this annoyance and overcome your antipathy to her conduct and convert it into pity. Remember no one can harm you as long as you are doing right yourself. Miss Baker, perhaps, thinks she is doing what is the very best for your interests. Therefore, you must take it for granted that while her conduct does perturb you it may not be of design. You are there for the definite purpose of accomplishing the most in an educational way that can be accomplished. If Miss Baker does something which is a gross injustice before the class resent it before the class in that strong, gentle, and forceful language that Miss Baker cannot help but feel and that every one in the class will sustain you in. I am sure you will not permit yourself to lose your temper or say anything you would regret, but that you will express yourself and insist on your unalienable rights in such a way that you will command the respect of your classmates, which you value most highly, and commend yourself to your own respect, which is of more value than that of any other.

SURGEON EXTRAORDINARY

Remember in life there are always petty annoyances and that these do more to disturb people than the great ones if they are permitted to. One may not fear the lion, but he is terribly harassed and annoyed by the flea; that parasitic action is a great disturber to moral force and mental balance. Remember that things obtained in life by courtesy or consent of others have very little value. Those that are forced show the real worth of the party who receives them.

Between the lines of this complex abstruseness one can feel that he is giving expression, if only vaguely, to the defence he had built up in his own mind against his critics. J.B. had more than one defence mechanism: he could shrink within himself, he could be overpolite to those he disliked, he could, as he reveals to Cecile, pity his enemies, or he could become haughty. He became haughty upon one occasion when he was consulted by a patient and his family physician about a serious, complicated fracture of the leg which had become united with a very disabling deformity. After examining the patient he carefully analysed the X-ray plates. The group about him waited anxiously for his opinion. Looking down his nose at those about him, he said, "This is a very difficult case, which will require the services of a master surgeon."

He accepted the case when the physician said, "Dr Murphy, that is why we are here. Will you take the case?"

CHAPTER XVII

As Nettie had feared, J.B. was not happy at Rush. On the surface the men there were courteous and friendly, but whenever he made a suggestion, even for his own department, their opposition became overpowering. Rush had got his reputation and name to use, but would allow him little use of his ability. However, his pride kept him from confessing all this to Nettie until there was something else in sight.

There was to be a vacancy at North-western University. Weller Van Hook, who had succeeded Fenger as head of the department of surgery, was retiring, and the place was offered to J.B. It is in keeping with the rest of his life that he did not accept the offer until he had talked with Nettie and knew how completely she approved the move and how happy it made her.

This proved to be J.B.'s last change in medical school affiliations and signaled the beginning of his most productive and effective years as a teacher. One of his first acts upon his return was to establish a laboratory in the medical school for his experimental work—this at Nettie's insistence, so that he would not come home and work at night.

She realized, and with unanswerable logic she made J.B. see, that their whole routine of life should be changed. During the early years of their married life she had spent countless nights waiting for him or working beside him in the laboratory; had given up everything to be a part of his career. The need for that kind of work was over. He had reached the top of his profession, and they were financially able to do as they pleased. Their children were well on the way to becoming young women and were handsomely provided for. It was

time that they slowed down on duty and caught up on pleasure. He confined his laboratory experiments to the daytime hours and gave the evenings to his wife and the social duties she thought fitting.

The laboratory at the school was a room which adjoined the anatomical dissecting-room on the top floor of the laboratory building. Here, besides experimenting, he had his younger faculty men teach his students operative surgery.

There is a story about this laboratory which Murphy used to tell with much gusto and ornate detail. Steve Skolka, a Polish emigrant, was J.B.'s *diener*—which is to say, he had the dirty job of cleaning the laboratory every evening after the doctor had finished work and preparing it for the next day. Steve had been at the school for several years and knew his way about. J.B. had chosen him for his conscientiousness and taciturnity.

Steve, who had been a butcher in his own country, had drifted to Chicago and found work in the stockyards. But his propensity for alcohol had proved his undoing, and he had been fired. It was only after a stiff probationary period that he had been employed by the medical school. *Dieners* and morgue men are difficult to find, for most men are squeamish about handling the dead, so the medical school and J.B. were glad to get Steve when he showed he had lost his taste for alcohol.

One of Steve's duties was to transfer the frozen corpses obtained for dissection from the mortuary to the dissecting-room; and when the students had dissected them it was Steve's job to take bucketfuls of the remnants down to the mortuary again. He was proud of that job, but not so proud of it as he was of being "Dr Murphy's right-hand man." That was the way J.B. addressed him: "Hello, Steve! How's my first assistant?" Such salutations pleased the Pole more than anyone realized, because he looked upon the doctor as

the greatest man in the world; and to be the right hand of the greatest man in the world was an honour about which Steve, had he been able to write, would have told the folks back in Poland.

Steve had a cot in the basement of the school, next to the mortuary, and he used to rise at six o'clock to begin his day's toil. There were so many odd jobs for him to do every day that, being a conscientious fellow and wanting to do them well, his work was never finished. As usual, this particular day he had been busy since dawn; and now it was afternoon and he was engaged in preparing Dr Murphy's laboratory for an operation. Mercy Hospital had telephoned to tell him that the doctor would be over to operate at four o'clock. Steve must have everything in readiness; the animal to be operated on had to be shaved, instruments had to be boiled, sterile linen had to be on hand.

Again the telephone rang: "Dr Murphy is now leaving the hospital." And again a few minutes later from downstairs: "Dr Murphy is on his way upstairs." Steve went round like a hostess before a dinner-party and gave one last look to see that all was as it should be. It would take the professor several minutes to climb the six flights of steps. Steve lingered, for although he had a number of things to do, he wanted to greet and be greeted by the great man. Murphy did not fail in his formula of greeting, and Steve went on about his chores. He returned at six when Murphy was finishing. When the doctor had gone Steve commenced cleaning the instruments, the while looking down wistfully on the dark streets below. The school building was empty, save for himself. The yearning of loneliness suddenly enveloped Steve, took his moronic spirit, and squeezed it unmercifully.

As J.B. told the story, he probably was shaking his head sadly at the thought that he had only corpses for company, when his eye wandered past, stopped, and came back to the

alcohol bottle standing on a shelf. What if it was meant for the hands? Imprisoned in that glass was a world of rosy hue. You could mix it with a little water and it didn't taste so bad.

Steve commenced to sing at his work. After a little while courage came to him, and the cold, dark mortuary refrigerator held no terrors for him. He walked into it with a cheery greeting to the dead and carried on a running conversation with them, answering his own queries, the while he heaved the corpses on to his trolley. On the way up in the old hand-drawn goods lift he fraternized with the six bodies that accompanied him. "Why not be sociable, my friends?" he asked. And then he was struck by a sudden thought: were there any Poles among them? "*Jak sie macie chlopcy?*" No answer. Steve then undid the cloth tied about a woman's head and beneath her chin. The mouth flew open. "That's what I thought," Steve said, and retied it.

Now on friendly terms with his companions Steve, as he carted the bodies into the dissecting-room, took pity on them. The tables were hard and cold. It was a shame to make them lie on them until their time came to be dissected. Why not stand them against the wall in friendly groups until he returned with another load? With great care and strength he moulded their extremities in attitudes which pleased the artistic sense grown within him. Here two were shaking hands, and there two were squared off for a fight. The remaining male and female were locked in each other's arms in amorous embrace—a lewd, but to Steve's sudden sense of humour a satisfying, picture. Gleefully he drank to their individual and collective healths. Then he bowed politely and, asking their leave, retired to get another load.

Meanwhile Steve did not realize that his frozen friends were in close proximity to a considerable amount of heat, for uncovered steam-pipes ran along the wall behind them.

To his panic-stricken surprise, therefore, when he re-entered the semi-dark room with his second load he was greeted by a body which slowly, weirdly, and majestically melted towards him with its arms outstretched.

It so happened that Murphy, having finished his dinner, had become concerned about his animal patient; and so, contrary to his custom, was returning to the school for a look at it. As he and his assistant mounted the stairs they were suddenly descended upon by a wildly screaming, frightened-out-of-his-wits Steve, who leaped down the stairs a flight at a time. "They're after me! They're after me! Help, Help!" he screamed like a madman, as he vanished into the night. His medical school career was ended as the professor rose from the floor, dusted his coat, and found his hat. Steve no longer was Murphy's right-hand man!

II

The animal J.B. had operated on that day was one of a series of experimental observations on the reconstruction of ankylosed (stiff) joints. The results of this work he presented before the American Surgical Association in St Louis. In preparing his paper he used his old question-and-answer system, which he had become more and more convinced was the most forceful way of presenting his subject. Although the editors of medical journals often complained of his writing style, his defence was that that was the way he taught. His success as a teacher had become well known by this time, and so, he reasoned, if there was value in his manner of saying things then there was value in writing them that way. He began his paper thus:

What are joints? What is the embryology of joint formation? What is the pathologic histology of acquired arthroses or false joints? What is the pathology of acquired endothelial lined

sacs? Can they be produced artificially? What is ankylosis? What are the pathologic and anatomic changes included in the term? What tissues are involved? From a practical standpoint into what classes may it be divided? When ankylosis has formed what are the limitations of surgery for its relief? Can we re-establish a movable, functioning joint with synovial lining? Can we restore motion and to what degree? In what class of cases can the best results be secured? For the future can we promise better than the flexible, fibrous unions that we have secured in the past? These were the questions that most forcibly presented themselves when I began the investigation of this subject in 1901. Subsequent experience has shown that, from a clinical standpoint, the majority of these have been answered favourably. Experimental work on joints in dogs is unsatisfactory on account of the difficulty in controlling infection and motion.

No matter how he presented his findings, however, they were always interesting; they gave even his unfriendly critics something to think about. To-day he told his audience that he had been able, by the interposition of fascia and muscle covered with a layer of fatty tissues, to produce movable joints with capsules and collagen intra-articular fluid. "This," he said, "I believe, is the first systematic production of new and practically normal articulations."

Murphy was having no difficulty now in having his material published in the *Journal* of the American Medical Association; and the publication circulated his fame and findings throughout the United States.

Almost simultaneously with his experiments in joint surgery, J.B. was interested in urological surgery. He had set the youngsters of his clinic to work gathering literature on surgery of the prostate gland and collecting the cases that had come to him for operation. In three years he had operated upon fifty-one patients with prostatic disease, and now he hastened to spread the gospel of this new field of surgery. Others, of

course, had written on the subject before, but Murphy was out to preach a sermon. He wrote:

The surgery of the prostate is rapidly approaching that of the appendix and gall-bladder in its significance to the surgeon and patient. Until very recently the prostate was not treated in the masterful and efficient manner in which other organs were handled surgically.

Experience has produced a number of changes in the technique of the operation, and as time advances we are able to procure more speedy and complete recoveries than in our earlier cases. It is very gratifying to be able to report fifty-one consecutive cases of prostatectomy with but a single death due directly to the operation.

During the last quarter of a century the sufferer presented a lamentable picture. Usually he was a man of great energy, strong mentally and physically robust, indefatigable in his labours, and by these qualities had gained a competence whereby he could spend his declining days in comfort and the pursuit of pleasure were it not for his prostate. By this he was deprived of sleep, suffered intensely from pain, and saw no hope of relief except in death. This picture may not fit the few, but it does the many who suffer to a pathologic degree from prostate enlargement.

In this article J.B. went out of his way to establish priority in this operation for his old friend Belfield, who had been one of a group of youngsters, himself among them, who had come under the influence of Fenger. Both had gone to Germany as young men about the same time and had returned simultaneously. Ever since he had gone abroad Belfield had devoted himself to diseases of the genito-urinary tract. In praising him, J.B. wrote:

Dr William T. Belfield, of Chicago, deserves the honour of being the first to follow a deliberate plan for the removal of the middle lobe through a suprapubic incision. This was not an accident, as suggested by G. Buckston Browne, but was a

deliberately planned and executed operation, as was well known to many of the Chicago profession at the time. The honour is incontrovertibly his, while Dittle's operation was not deliberately planned and executed, but was done in an emergency.

J.B.'s trips abroad—to attend medical congresses, to visit clinics, to see old friends—were becoming annual events. He dearly loved to revisit Heidelberg. In fact, he was very fond of Germany and was happier there than in any other country in Europe. He spoke German very well, and his entire attitude changed when he crossed over into Germany. If his family was with him he took charge. This was not so in France, for he spoke but little French and was too dependent upon others. But these trips abroad were not his only peregrinations. He still went on fishing trips each spring and autumn, and now that his fame pointed him out wherever he went he managed to attend most of the medical society meetings in the United States.

In July of 1908 he sailed with a special purpose—to receive an honorary degree of Doctor of Laws from the University of Sheffield. Others honoured at the same time by the university were Depage, of Brussels; Ernest Fuchs, of Vienna; and his friend, Lucas-Championnière. Dr Keefe, who was with Murphy on that trip, recalls Murphy's first meeting with Championnière some years before. Championnière had greeted J.B. by saying, "Oh, Dr Murphy, I am so glad to meet you! How is your father?" And when told that this was *the* Dr Murphy the Frenchman had shaken his head and said, "So young! So young!" At the time Murphy was about forty. Honours paid him and other world-renowned surgeons reverberated across the Atlantic, but filtered only softly into Chicago. Whatever mention was made of it his enemies would say, "Well, those silly foreigners don't know what they're doing."

In 1909 he went abroad alone—this time to Budapest for

a meeting of the International Surgical Congress. J.B. was scheduled to speak for fifteen minutes, but three other speakers, all from countries other than the United States, offered their time so that he might extend his address to an hour. Europe had discovered him. Could the United States continue to ignore him?

Despite his high, nasal voice he was given a spontaneous, enthusiastic ovation when he had finished. Filled with the plaudits of his European colleagues, he went that evening to a reception at which the Emperor Franz Josef was to be present. But without Nettie, clever, capable Nettie, to look after him he forgot his invitation; left it at his hotel. Unsuccessfully he tried to persuade the lackey at the door to admit him. Embarrassed, he was about to turn ignominiously away when von Eiselsberg, a distinguished German surgeon, came to his rescue and got him admission.

No sooner had he returned home than J.B. learned of Paul Ehrlich's discovery of a new arsenical drug which he called "606," since it was the six hundred and sixth compound he had mixed. Ehrlich recommended it highly for the treatment of syphilis, but it was not available as yet to the profession. J.B. was very much excited by Ehrlich's experiments and was anxious to try out the new remedy. If it proved a cure for syphilis the man had found something! What disease on earth, with the possible exceptions of tuberculosis and cancer, caused such widespread suffering as syphilis? A cure for it would be one of the greatest contributions to the human race any man had ever made! Here was a marvellous chance—a chance to be dramatic.

One of J.B.'s assistants, in Europe on his honeymoon, received a cable directing him to go to Paul Ehrlich's laboratory in Frankfurt and learn all he could of the new treatment for syphilis. This was an unwelcome commission for a young man on his honeymoon, but fortunately his bride was an

understanding person. A second cable from J.B. asked that the young man procure a supply of the compound and send it to Chicago at once. For some reason, probably because he did not think it necessary, J.B. sent no word to Ehrlich that his assistant was coming to him. So the young bridegroom simply appeared one day at Ehrlich's laboratory and demanded of that scientist time and space. It was only after considerable difficulty that Ehrlich became convinced of the authenticity of Murphy's cable and the young man was permitted to enter. A week passed during which the assistant was allowed to frequent the laboratory and clinic and observe the technique in the use of salvarsan. Finally Ehrlich gave him twenty-five ampules of the arsenic compound, which were posted immediately to Murphy.

The young couple continued on their travels, while in Chicago J.B. fretted the days away watching for the drug. He was determined to be the first in Chicago to use it. But days and weeks passed without sign of the salvarsan. To his great disappointment he learned that the Michael Reese Hospital had received a supply direct from Ehrlich's laboratory. Eventually J.B. received the package, but he was firmly convinced that his consignment had been intercepted by a worker in Ehrlich's Institute whose racial feeling was more pro-Jewish than strictly scientific. Some of the doctor's more independently thinking associates secretly wondered if he were not becoming obsessed with the idea that his every activity was being obstructed by an organized opposition. On the other hand, having been a victim of criticism as often as he was, it is a wonder he did not develop a persecution complex.

Not daunted in the slightest, however, J.B. wrote an article (if he couldn't be the first to treat syphilis with salvarsan, he could be the first to write about it) for *The Journal of the American Medical Association* entitled, "The Arsenical Treatment of Syphilis." This appeared in the autumn of 1910, and

in it he reported one case treated with "606" before the drug was available to the profession generally. This article appeared at a time when his surgical practice was such that there seemed to be no reason why he should want to attract more patients to be treated for syphilis. It may have been that he had nothing else at the moment to interest him save routine surgical work, and that he really wanted to do something for humanity by furthering this treatment for a disease that was getting worse all the time. Whatever his motive, the one case he cited proved nothing from a scientific standpoint, and the article might well have been delayed until a more accurate report could have been compiled on a number of cases and over a longer period of treatment. Quite properly, this example of breaking into print prematurely was attacked with relish. Was Murphy setting himself up now as a venereal specialist, and if so, by what right? Here was a prime instance of his desire to place himself before the profession as a prophet, to take his place as a driver of the vanguard. But his friends replied, "Not at all." This, they averred, was only an illustration of Murphy's alertness and general interest in the progress of medicine and surgery. If this last is true, however, we search in vain for a follow-up article relating further experiences in this direction. Evidently J.B., having been thwarted in his desire to be the first physician in Chicago to use "606," turned his attention elsewhere. Some one else had stolen his thunder. If he couldn't be a star he didn't want to play on the bill at all.

CHAPTER XVIII

THE rest of the world might be fooled by John B. Murphy, but his enemies in Chicago thought they knew him for what he was: a sensationalist, an opportunist, a publicity seeker, and what newspapermen called "a trained seal"—that is, a prominent person who is willing to be quoted on any subject at any time. They could concede that Murphy was something of a surgeon, indeed that he might have shown flashes of brilliance, but he was no conscientious healer, no mender of the maimed. He was interested purely and simply, they argued, in giving rein to his own ego—in doing the spectacular thing at a dramatic moment, in piling up a fortune, in climbing to the top in society, in publicizing himself from the housetops.

Some of those things were true—to a degree. But his critics were men who did not know him. Certainly he had his faults, as many as the next man, but there was one virtue in him to which his enemies turned a blind eye. That was his work. Here was a man who did nothing else but work, or at least would have done nothing else if he had been let alone. Here was a true surgeon, from the top of his silk hat to the extra inch of his size-ten shoes. He was not spectacular about those weeks and months of investigation he made on a mere idea—he asked no applause for that. If, when it came to presenting his conclusions, he sought the spotlight, can he be condemned for it? The American Medical Association thought not.

On June 9, 1910, when that all-powerful body met in St Louis to elect officers for the coming year, the first man nominated for the presidency was J. B. Murphy. William H.

("Popsy") Welch, holding the chair of pathology at Johns Hopkins and leading figure in the rapid development of that institution, was the outgoing president. J.B. was nominated for the office by, of all people, Frank Billings, the man who had said he did not like him, though he had admitted he was the best surgeon in town. Speeches seconding the nomination were made by M. L. Harris, of Chicago, one of his competitors in surgery; Charles Chassaignac, of Louisiana; and Cantrell, of Texas. Dr A. Jacobi, of New York City, also was nominated, but Murphy was elected by 77 votes to 38. As president-elect he would be inducted into office in 1911.

This honour had come to him unsolicited, and from colleagues in Chicago who evidently had considered his professional qualifications above their own personal prejudices.

In October following his election Dr Franklin H. Martin, managing editor of *Surgery, Gynecology, and Obstetrics*, the surgical journal which J.B. had encouraged, invited the subscribers to visit the surgical clinics of Chicago. The response was overwhelming; and it was urged that these practical clinical meetings be perpetuated by an organization which would ensure an annual opportunity for surgeons to visit the clinical centres of the country. J.B. actively supported the plan and struck the key-note of the proposal:

Hearing papers and reading papers is one thing. Seeing men do things is another. We all know that no such benefit can be derived from hearing papers read as one can obtain from seeing the work done right before us. When you see and hear it in the latter way it is part of yourself. When you hear it read it is still the author's, although a small part of it has been absorbed by yourself.

His clinic was well attended by the visiting surgeons, and he was the popular choice for presidency of the organization, to be known as the Clinical Congress of Surgeons of North

America. But when it was intimated that he might be elected he objected, "I am President-elect of the American Medical Association. I will not accept it, for I have already assumed the other important obligation. Ochsner should be honoured here."

As the temporary chairman called the meeting to order J.B. entered the hall, and seeing him the audience rose to its feet and cheered. It was some time before order could be restored and J.B. could respond. In his speech praising the new era in surgery he emphasized the belief that their organization must begin by electing a leader of clinical surgery as its president. In a laudatory speech he proposed the name of Dr A. J. Ochsner, of Chicago. There were cries of "Murphy! Murphy!" but, ignoring them, J.B. took the meeting into his own hands and obtained a second to his nomination. Then he requested a unanimous rising vote. The response was instantaneous. Amid cheering and hand-clapping, J.B. bolted from the room. At last he had received recognition from a representative group of American surgeons in his home-town. We can but guess at the deep sense of satisfaction and fulfilment that it gave him. Those were his fellows cheering him, those were his rivals. He not only had beaten them, he had gained that which doctors withhold the longest—their respect. It was the thrill of his life. The warmth of it touched him to the soul.

That same month dispatches in Chicago papers stated that Murphy had been proposed to succeed Dr J. William White, the John Rhea Barton Professor of Surgery at the University of Pennsylvania. There are no records to show that the regents of the university offered him the position, but if they did he declined it. Mercy Hospital was expanding, and within its walls he was virtually the dictator. Its activities, policies, and spirit revolved entirely about him and his patients. The hospital authorities chose to put all their eggs in one

basket, chose to take their chances in the event of Murphy's death. However, this made for smoothness and efficiency in his surgical practice and in the operation of the hospital. It might have been difficult to give up this smooth-running machinery for another which might need oiling.

Now that his home, his work, and his teaching were working perfectly his own mechanism began to show signs of breaking down. By March of 1911, just before he was to be inducted as President of the A.M.A., it became obvious to Nettie that she would again have to take matters into her own hands. He was working too hard again. As President-elect of the A.M.A. he was constantly being invited to speak before medical meetings of all kinds, both state and national, and he refused to give the same address twice. Thus, apart from his experimental work, his surgical practice, and his teaching, he was kept busy writing until all hours of each night, or he was constantly snatching up a suitcase and running to catch a train.

One day Nettie called a halt. He had been losing weight; what little sleep he got was restless. The slightest thing irritated him, and for weeks he had not whistled *Auld Lang Syne*. "We're going to take a holiday," his wife said.

"But, Nettie——" It was impossible—simply impossible! He was about to take office as President of the A.M.A. What about his patients?—and they were numerous. What about this and that? No, it was simply impossible. However, Nettie fell ill and he changed his mind.

They went to Florida. Keefe went with them. Four days after their arrival J.B. went to bed, stricken by fever and severe gastro-intestinal pains. Six others in the same hotel, at Belair, became ill simultaneously. Typhoid fever was diagnosed, but Murphy's physicians were unable to obtain a frank Widal reaction which would prove the diagnosis correct beyond doubt. Fortunately Keefe escaped the disease, and

when J.B. asked to go home his friend accompanied him. His temperature continued to range around 103 degrees for twenty-six days, and then fell gradually. At one time he thought the end was near. Keefe tells this story:

"Now, Keefe," J.B. said, "this thing has got me. I don't know what turn it will take, but there will be a number of suggestions about calling some one else in consultation. I want you to see that no one is called in unless it be at Dr Mix's request. He is in charge of this case. The doctor in charge should have complete control. If Mix isn't satisfied with the way I'm getting on then he can suggest getting help. Never jeopardize the patient's chances of recovery by the cross-firing of doctors."

Strains of paratyphoid bacilli were used in an attempt to obtain a positive Widal reaction, but to no avail. But it was typhoid, as the investigations of Jordan and Irons proved. They traced the Florida epidemic (besides the seven hotel cases Irons found twenty patients similarly ill in Tampa) to a typhoid-carrier who worked in a dairy near Tampa.

During his convalescence it was necessary for J.B. to refuse many invitations to address medical meetings. One of these was from the Medical Club of Philadelphia, which wished him to respond to the toast "The American Medical Association," at a dinner to be given in honour of William Howard Taft, President of the United States.

The Medical Club will entertain the President of the United States on Thursday, May the 4th. He arrives in Philadelphia at seven o'clock and we will sit down to dinner at the Bellevue-Stratford promptly at half-past seven. There will be no speeches at the dinner. Immediately thereafter, say half-past nine, a reception will be held in the Ball Room, at which there will probably be at least fifteen hundred present. I am anxious to have you respond to the toast, "The American Medical Association." On account of the President's wishes the speeches must be

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limited in number, and each speaker must not occupy more than five minutes.

I certainly hope that you can come. This is a great thing for the American medical profession. I am not aware that the President of the United States has been the guest of any medical society at any previous time.

Cordially yours,

W. L. RODMAN

On April 28 Dr Rodman wrote again:

It grieves me very much to know that you have been ill, but I am pleased to hear of your safe convalescence. Of course, we are all disappointed to know that you cannot be here to take part in the Taft dinner and reception, which promises to be such a notable occasion. As you are the President-elect of the American Medical Association, and nearly all of the ex-Presidents will be here, I hope that you will send me a telegram which I may read on this important occasion.

Rodman may have been disappointed that J.B. could not come, but no one was as disappointed as J.B. himself. To miss a chance like that to shine almost made him have a relapse. He sent the following telegram:

GREETINGS.

It is a source of sincere regret that illness prevents me from participating with the Medical Club of Philadelphia in a dinner and reception in honour of William Howard Taft, President of the United States, who is so ardently admired, so highly respected and sincerely beloved by the whole American medical profession.

He had met many great men, but he had never met a President of the United States. It was difficult to remain in bed.

II

With all these honours, then, with even the Chicago die-hards finally coming round and admitting pride in him, it would seem that at last whisperings against this man Murphy had nothing to feed on. It would seem that he had, by his great contributions to surgery, drowned out any and all petty scandals which had him as their subject—but that is not the case.

Norman Bridge journeyed from his retreat in California to New York about this time, or at least just after J.B.'s illness. While there he was told, very confidentially, a secret: Did he know that Murphy, the great John B. Murphy, President-elect of the American Medical Association, had been confined in a sanatorium for several weeks for the treatment of alcoholism and drug-addiction? Did he know that? Was it true? Why, of course it was true. Didn't so-and-so, a friend of Jones's, see his name on the patients' register of the institution? That was the real reason why Murphy did not attend the Taft dinner. He couldn't get out of bed. They had him in a strait-jacket.

When Dr Bridge stopped in Chicago on his way home he told Nettie what he had heard.

Irate over the story Bridge told, Nettie wrote to the sanatorium where J.B. was said to have been taking a cure, and an investigation was begun. It was learned that a patient, not wishing to give his right name, had supplied a fictitious one—the first name that came into his head. It had happened to be "John B. Murphy."

Now things like that don't happen to just anyone. One must have some strange magnetism for scandal to come and settle on one like that.

He was sitting up in the latter part of April, and in the early part of May he was able to be about the house—strong

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enough, in fact, to write his mother-in-law, who was solicitous about him:

DEAR MOTHER,

Your numerous letters to Nettie were received, and I thank you very much for your solicitude concerning my sickness. I am happy to say that I am up practically all day now, going downstairs to meals, and day after to-morrow am going out to the country for a couple of weeks. I have had no complications, and while for a time I was rather sick I feel that, on the whole, I may be better in the future than I have been in the past, as most people are after typhoid.

General business is very quiet. The labour disturbances are numerous and increasing. Carter Harrison (the second) has opened up his administration in a regular way, as one would expect, and every one hopes for good results. Mercy Hospital is not quite as full as it was, but it will not take long to fill it when we get working again.

Nettie is fairly well considering the illness which she had before I got sick and then the strain during my illness, but we hope with a few weeks in the country that she will have an opportunity to pick up too. I really think she needs it as much as I do.

Filling the hospital with patients was not going to be as easy as he had thought, for no sooner had he recovered sufficiently to work again than the annual meeting of the A.M.A. was in the offing, and he had to get together an address—not just any address, but his address of addresses, the inaugural. What he said would be spread far and wide, and he well knew he could not afford to invite criticism by doing a slipshod job. The meeting was scheduled for June in Los Angeles. Although this was no task for a convalescent who was trying to pick up all the loose ends of his life at once, still he attacked it with his usual Murphy dauntlessness.

Nettie would not miss this—his induction as President of

the A.M.A. She accompanied him to California. The applause was long and enthusiastic when he rose to speak. He had chosen for his subject, "Organized Medicine: its Influence and its Obligations."

"It is the purpose of every man's life," he began, "to do something worthy of the recognition and appreciation of his fellow-men. The span of man's activity is so short that many who are most worthy cannot receive this honour; that you should have conferred it upon me affects me profoundly."

Walking straight into that area where angels fear to tread, J.B., in this, his first address as president of the largest body of medical men in the New World, said that one of organized medicine's obligations was to educate the public—in other words, he advocated publicity. Could this have been his conviction all along? Was there reason here for all his persecution?

"It is not quite in keeping with the larger economics of to-day," he went on, "that the American Medical Association should annually gather a large number of medical luminaries and have them depart without leaving lasting impressions on the public mind. Advantage should be taken of these occasions (annual meetings) to produce a spirited public awakening in medical and health truths. There should be an extensive and accurately planned course of instruction on health and disease by the master teachers of the profession through lectures, exhibitions, lantern demonstrations, and moving pictures. These should be free from technicalities and pedantry, and should bristle with information, but should be presented in a simple, comprehensive, and attractive manner. . . .

"The first and all-pervading idea of our medical heritage is the public—the people—and, concretely, the patient. The latter is the centre of the medical universe, round which all our works revolve and towards which all our efforts tend. For centuries the medical profession has criticized the public for

its lack of judgment in its selection of doctors. The public has employed the quack; it has employed the irregular or sectarian; it has employed the psychopathic and Christian Science healer; it has employed the bone-setter and the chiropractor. These are employed not alone by the ignorant, the foreigner, or the poor, but by the so-called intelligent, reasoning, educated, and wealthy people of every community. They place a greater amount of confidence in all these healers and more enthusiastically support them than they do the regular members of the medical profession. Why? Are they more skilful? Are they more worthy of confidence and support? Not at all! But they give the patient some kind of explanation or reason or working hypothesis for the results they attempt to obtain or claim to secure.

"In other words," he went on, "they educate the people in their theories, beliefs, or sophistries; and that is what the public wants—in fact, what it demands. What has the regular medical profession done to educate the public in the last three centuries? Nothing! We have demanded of the public our acceptance on blind faith, and the age of blind faith in individuals is passed. What have we taught them of the real truths or principles of scientific medicine? Nothing! What beacon have we set for the layman to assist him in the selection of a skilful practitioner? None! Still, we daily condemn him for his lack of judgment in these matters."

His audience sat up. Here was a man with ideas and the courage to express them. In this day, where there is so much talk of a Federal department of medicine, it is interesting to note that J.B. had the same idea; he asked for a different kind of legislation, however—a legislation not to supply remuneration for the doctor, but protection for the public from quacks.

"I am using this high office," he said—"the presidency of the most powerful medical organization in the world—to say to legislative bodies that the horrible cost of poor medical

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service in invalidism and mortality falls on the community, and that for this the community is greatly to blame, because its legislators have almost universally failed to enact sufficiently strict State laws controlling the practice of medicine; notwithstanding the repeated and urgent requests made by the profession for their enactment they have not demanded, through their respective State boards, a high standard of education for licence to practise; they have not prohibited quackery in all its forms by an adequate penal code; they have not supported the medical profession in its altruistic efforts to render to the people a better service.

"The remedies I can only touch on lightly. They lie in a better equalization of the supply of and demand for medical men; better preparation for the art of practising medicine to be brought about by better medical colleges, supported by private endowment, or by the State if necessary, and the legal suppression of incompetent ones."

In his comprehensive speech J.B. touched on medical research too, defending doctors in their experiments on animals. Unbelievable as it is, it is true that medical men to-day are still in the same position of having to fight alone for the right to defend humanity against disease. There are no laws to help them—in fact, quite the contrary: there are laws to hinder them. There are still those who believe that doctors should not use domestic animals—or, for that matter, any dumb animals—for experimentation. Their argument is: "They (the animals) haven't done anything. Cut yourself open if you want to experiment."

On this subject Murphy said: "The right to conduct animal research is fought for by medical men almost single-handed. The contest for a national department of health for the prevention of disease has been made in the main by medical men. The struggle for health legislation is made mostly by medical men. Can anyone doubt the sincerity of the medical pro-

fession in these struggles when their accomplishment means a great reduction in its revenue?

"The opponents are ill-balanced sentimentalists—people with limited capacity for estimating educational or health factors; people without capacity for perspective—such as the anti-vivisectionists and anti-vaccinationists—and people with less intellect or integrity than any of these.

"The gross and unpardonable indifference of the people to their own physical welfare and that of their children and neighbours is more discouraging and a greater barrier to progress than active opposition. It requires some great calamity to rouse the dormant public mind to an appreciation of its interests and its responsibilities and to the penalty it pays for inactivity."

The President recommended the establishment of a health journal for distribution to the laity. He believed that such a publication would make people understand that the obligation is theirs more than the medical profession's. And yet in spite of this very potent suggestion twelve years of sluggish time had to drag on before *Hygeia* was published to fill this aching need.

His old bogey—the question of medical men splitting fees, which had plagued him throughout his term as President of the Chicago Medical Society—came in for an airing in his speech. He took the profession to task in no uncertain terms for such a wretched practice.

"The medical profession," he said, "should be the unquestioned forerunner of humanitarian undertakings. Our sacred calling should be exemplified in our acts so that each individual citizen may have every possible opportunity for the conservation of his health and the preservation of his life regardless of his ability to compensate the physician. There is a common, insidious, and deadly parasite eating at the root of public medical confidence, and that is the practice of medical

fee divisions, commission-paying, and the sale and purchase of patients. We should see to it that no man of our profession barter to the highest bidder in commission and fee divisions. He who offers or gives is morally as guilty as he who requests or receives, and no sophistries should be accepted in justification of this atrocious practice. The money-changers of the profession must be driven out of the temple of *Æsculapius* as they were from the temple of religion."

His final words to the Association carried in them his own philosophy of medical progress:

"The physician or surgeon is not in competition with his fellow-practitioner at all, but is in competition with the average standard of the medical qualification of his time. This standard is the line dividing mediocrity and incompetency of varying degrees from knowledge and efficiency. He who keeps above the standard desires companionship. Therefore, if we elevate the ethical and educational average we increase the brotherhood of the profession and enhance the percentage of efficiency to the public. The effect of capital and labour organization has been to lessen individual exertion and reduce men to a common or mediocre level, where their decadence is inevitable. The ideal of medicine, on the contrary, must be the stimulation of individual exertion to the highest degree and the establishment of a standard, the attainment of which should be the one great desire of every member of our profession, each to assist the other in his upward progress.

"Advancement is retarded by the failure of the individual to utilize and avail himself of opportunity. We are all spend-thrifts of time; we all overlook great opportunities. Many are ruminants on their imaginary disadvantages in the contest; these never become producers. The demand of the times is that we level every opposition and make smooth the way for general progress, enlightenment, education, and the higher ethical obligations. The individual is responsible for his own

position and, to a limited but positive degree, for that of his fellow-practitioner. When given a diploma from a medical school or a licence to practise, we are all supposed to be equal. But no insignia makes men equal in medicine more than in any other line of endeavour. By their own superior intellectual qualifications, their fidelity to purpose, and above all by their indefatigable labour the few become leaders."

It was a strong address which the public, as well as the profession, could understand. He had not confined himself to a scientific subject, but had set a precedent for future presidential addresses in attempting to bring the public and the profession into close relation—a noble, if overwhelming aim.

CHAPTER XIX

THEODORE ROOSEVELT had resigned office as President of the United States in March 1909. The next year he spent in Africa on a scientific expedition, returning to New York in June 1910 to be given a tumultuous welcome. During the time he had been away there had developed under President Taft a definite break between the conservative and progressive elements of the Republican party. Immediately upon his return Roosevelt, through the columns of *Outlook*, a weekly periodical of which he was a contributing editor, returned to politics, siding with the progressives. He began a fight for what he called the "new nationalism," a term faintly suggestive of his cousin Franklin Delano Roosevelt's "new deal." So intense did the fight become between the two factions of the Republican party that on February 25, 1912, Theodore Roosevelt declared himself again a candidate for the Presidency. Despite the fact that he had already served two terms he was persuaded by his intense popularity to stand again. Needless to recall, it was a great mistake. Notwithstanding his popularity with the masses Roosevelt was defeated by Taft at the Republican convention held in Chicago that June. Undaunted by this reverse, however, the defeated group, under the leadership of Roosevelt, organized the Progressive party. Its first convention, held in Chicago, admitted women as delegates, a unique step in American political history, and nominated Roosevelt for President and Hiram Johnson, of California, for Vice-President. The Progressive party became known as the "Bull Moose" party, a term which probably originated in Roosevelt's remark, "I feel as fit as a bull moose."

The Democratic convention, meeting in Baltimore, had nominated Woodrow Wilson. Thus the three-cornered contest began with Wilson and Taft concentrating their attack on Roosevelt.

Roosevelt made a sweeping, forceful campaign through the South and Middle West, and arrived in Chicago on October 12. But whereas he had started out with a bang, his speeches had become less and less effective because of a severe laryngitis, and he had been forced to cancel addresses in Indiana and Wisconsin, with one exception—Milwaukee. He insisted upon speaking in Milwaukee.

Roosevelt left the Gilpatrick Hotel in Milwaukee about eight o'clock that evening of the 12th, and entered a motor-car which was to take him to the meeting. The road in front of the hotel was blocked with cheering enthusiasts, and it was necessary for the ex-President's small bodyguard to force a passage through the crowd to the car. As the Colonel turned to wave to the crowd he was shot in the chest by an insane man named John Schrank. Quickly the crowd leaped on Schrank, who was saved from being lynched by the intervention of the wounded man. Later Schrank stated he had followed Roosevelt throughout his speaking tour trying to shoot him, but that crowds had always frustrated him until that moment.

Sensing the dramatic value of such a situation, Roosevelt insisted upon driving on to the lecture-hall. A hushed awe greeted the chairman's announcement that T.R. had been shot, but that he insisted on speaking, anyway. Then as mighty applause as the ex-President had ever had, it is said, shook the great building. As he rose to address the crowd he opened his coat to remove his manuscript, and blood was seen upon his shirt-front.

"I am going to ask you to be very quiet," he began, "and please excuse me from making a long speech. I'll do the best I can, but there's a bullet in my body."

He talked for an hour, while the blood trickled down his chest and leg. As soon as he had finished speaking he was taken in an ambulance to the Emergency Hospital, where he was examined by Doctors S. L. Terrell, who was a member of his party, R. G. Sayle, and S. A. Stratton, both of Milwaukee. Dr Joseph Colt Bloodgood, of the Johns Hopkins Hospital in Baltimore, happened to be present that evening, and he soon appeared at the Emergency Hospital to offer whatever assistance he could. As Bloodgood made his way into the examining room he was greeted warmly by Roosevelt.

"I'm glad to see you, doctor. This is luck. I want you to look after me. I don't want to fall into the hands of too many doctors and have the same experience that McKinley and Garfield had."

"Naturally I'm complimented, Colonel," Bloodgood said, "but I'm not on my home grounds. We'd both be under a handicap."

"Well, what do you suggest then?"

"Could you stand a trip to Chicago?"

"Without a doubt. I'm uncomfortable when I take a long breath, but that short trip would be nothing. Who's there?"

"John B. Murphy. He's just the man to take care of you."

The ex-President had heard of him. "Fine reputation!" he said. "Call him up and have him meet me."

While Roosevelt was speaking four unauthorized telephone-calls were being made by as many individuals acting on their own initiative to four Chicago surgeons, requesting them to come to Milwaukee and examine the ex-President. The doctors who received these calls were Arthur Dean Bevan, L. L. McArthur, A. J. Ochsner, and J. B. Murphy. All of them hurried to board the special train which had been ordered to take them to Milwaukee.

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Meanwhile the first bulletin to the Press concerning Roosevelt's condition was issued in Milwaukee by the doctors who first examined him. It follows:

Colonel Roosevelt has a superficial flesh-wound below the right breast with no evidence of injury to the lungs. The bullet is lodged somewhere in the chest-wall because there is but one wound and no sign of injury to the lungs. Bleeding was insignificant, and the wound was immediately cleaned externally and dressed with sterile gauze by R. G. Sayle, Consulting Surgeon of the Emergency Hospital.

As the bullet passed through Colonel Roosevelt's army overcoat, other clothing, doubled manuscript, and metal spectacle-case its force was much spent. The appearance of the wound also presented evidence of a much-spent bullet.

The Colonel is not suffering from the shock and is in no pain. His condition was so good that the surgeons did not object to the journey to Chicago, where he will be placed under surgical care.

The bullet had struck the thick manuscript which was his speech, a package of letters, and his heavy metal spectacle-case and had entered the right chest-wall one inch below the nipple. The course of the bullet had ranged upward and inward, and there was no exit wound.

The bulletin was issued while the four Chicago doctors waited at the station, and they did not know, therefore, that the plans had been changed. But the railway was notified, and eventually the four Chicago doctors were found and apprised of the new plans: that the patient was coming to Chicago by special train over the North-western Railway and would arrive at eight o'clock the next morning. The four medical men then conferred and agreed to meet at Roosevelt's coach the following morning to examine him and determine what should be done.

When J.B. reached home Nettie met him with the news that

Dr Bloodgood had telephoned to say that Roosevelt was coming to Chicago to be under his care.

"But," J.B. said, puzzled, "Bevan, McArthur, Ochsner, and myself are to see him in consultation to-morrow morning in his private coach."

"No, my dear. Dr Bloodgood definitely said that Colonel Roosevelt wanted to be under the care of one surgeon. He chose you after talking with Bloodgood, and you are to meet them at the station. They'll arrive about five o'clock."

The whole situation had been unhappily handled, though by well-meaning persons. Confused, J.B. was at the station when the train drawing Roosevelt's coach came in. Entering the coach, he found Terrell and Sayle trying to persuade their patient, who was up shaving (and grimacing each time he took a long breath), to get back to bed.

Roosevelt greeted Murphy warmly. "Glad you're here, doctor. I've heard nice things about you."

"Thank you, Colonel. I understand you're here to be under my care."

"That's right."

"Good. Now, Colonel, I want you to get into bed."

According to the story as it was told by J.B., Teddy looked into his eyes for a moment to see if he meant it; and then, flashing his famous smile, he said, "All right, doctor. I guess you're the boss."

After a cursory examination J.B. had the famous patient taken to Mercy Hospital. The stories pointing to Murphy's shrewdness in getting to Roosevelt first are numerous. The most common one is that while Bevan, McArthur, and Ochsner waited at the main station Murphy rode to the Clybourn Street Station in an ambulance and carried the patient off on a stretcher.

According to Bloodgood, on the train from Milwaukee Roosevelt had again made it plain that he did not wish the

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responsibility of his case to be divided. He even discussed the political advantage which might follow his entrance into a Catholic hospital. Thus there can be no doubt he had made up his mind to place himself in Murphy's hands. Almost any doctor will agree that Roosevelt was far better off under the care of one doctor than he would have been with four, providing, of course, the doctors were equally competent.

J.B. saw his patient comfortably settled in bed, examined him more thoroughly, had blood counts made, and then called Bevan for consultation. McArthur and Ochsner received no word from him, nor did he ever discuss the matter with them at any other time.

The first bulletin from Mercy Hospital was issued at ten-thirty that morning to newspaper-men and the crowd which had gathered outside the hospital:

The bullet entered the chest without striking any of the vital organs in transit. The wound has not been probed. The point of entrance is one inch to the right and one inch below the right nipple. The bullet-wound ranged upward and inward four inches, going deeply into the chest.

There is no evidence the wound will prove fatal. Pulse 90; temperature 99.2; respiration 20; leucocytes 8200. No operation to remove the bullet is indicated at the present time. His condition is hopeful, but the wound is so important as to demand absolute rest for a number of days.

J. B. MURPHY
ARTHUR D. BEVAN
S. L. TERRELL
R. G. SAYLE

It had been determined in Milwaukee that the bullet was lodged behind a rib and had not entered the lung or perforated the pleura. Roosevelt's immediate condition was excellent, in spite of a loss of blood, and the serious question, therefore, was one of complications from an infection which later might

mean a serious chest operation. This bulletin corroborated the Milwaukee statement, but also answered the question which every layman had on his lips: "Will they probe for the bullet?" It is difficult for the palpitating public to be satisfied in such cases if it is not shown the actual missile. It required good judgment to leave the bullet alone, but even more determination to resist a persistent demand from the Press and public as to why it was not removed.

The serious surgical question was one of infection which might develop from the introduction of bacteria by the bullet in its course through the patient's clothing and which would be activated by surgical interference. An X-ray plate of the chest showed the bullet to be embedded in the right fourth rib, four inches from the sternum. This rib had been fractured by the impact of the bullet, and it was this fracture and the pleural irritation which caused pain in breathing. The technique of making X-ray plates was not so well developed as it is to-day, nor were they accepted as commonplace diagnostic aids by the public. The newspapers made quite a feature of those pictures: they reproduced them with arrows pointing to the bullet.

At one o'clock in the afternoon, owing to the constant flow of visitors and well-wishers to see the patient, it became necessary for the attending surgeons to deliver this edict:

He (Roosevelt) must have absolute quiet, cease talking and seeing anyone until we give permission, as his is not a mere flesh wound, but is a serious one in the chest. Quiet is absolutely essential.

That evening a second bulletin, obviously dictated by Murphy, as is evidenced by his use of a favourite expression found in his operation notes, "the records show," was issued:

The records show that Colonel Roosevelt's pulse is 86; his temperature 99.2; and respiration 18; that he has less pain in breathing than he had in the forenoon; that he has practically

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no cough; that there has been no bloody expectoration. We find him in magnificent physical condition due to his regular physical exercise and his habitual abstinence from tobacco and liquor. As a precautionary measure he has been given to-night a prophylactic dose of antitetanic serum to guard against the development of occurrence of lockjaw. Leucocyte-count 8800, lymphocytes 11.5.

This was signed by Murphy, Bevan, and Terrell.

Colonel Roosevelt's family physician, Dr Alexander Lambert, of New York City, came to Chicago and consulted daily with the local surgeons. It was necessary time and time again to warn the ex-President's friends that they were endangering his health by calling on him. On the nineteenth the following bulletin was issued:

To-night Colonel Roosevelt is fatigued from having undertaken to respond to some of the importunities of his friends. While he has to-day probably passed the crisis he is not beyond the range of danger. It is only by continued care and absolute rest, which we have to-night strictly ordered, that the favourable progress which his case has been making can be maintained.

If it was difficult to impress this warning on the public, it was also difficult to impress upon the dynamic patient that, though the swelling and infiltration in his chest had diminished, and that while his general physical vigour appeared good, a sufficient time had not elapsed for the complete repair of such a serious wound. However, on the 21st Roosevelt left Mercy Hospital for his home in Oyster Bay, Long Island, under the care of Dr Lambert.

The prominence of the patient placed a great responsibility on Murphy and his consultants; and the courage they displayed in their policy of watchful waiting cannot be overstressed. Had they been proved wrong in not operating they might never have recovered their good reputations. Through-

out the time Roosevelt was under their care other physicians and surgeons, none of whom had examined the patient at any time, gave out interviews to a greedy Press interpreting the clinical picture into the language of the layman. *The New York Times* and *The New York World* were telegraphing daily to Murphy for news of the Colonel's condition. His replies were essentially the same as the official bulletins issued in Chicago, signed jointly by himself and Bevan. The tremendous news value of the patient led to misquotations on the part of surgeons in other cities, and these were followed by embarrassing situations. Dr J. William White, Professor of Surgery at the University of Pennsylvania, had, upon hearing of Roosevelt's being shot, wired Murphy to ask if there was anything he could do. And later he wrote J.B.:

Thank you for your telegram. I felt sure that you would not misunderstand my eager desire to be of service to the Colonel whenever he passed out of your hands and resumed his travels. I have told every one here that he could not possibly be better taken care of than by you, and that the profession and the people of the country would surely have the same feeling.

If you can, when you find a spare moment let me have some authentic surgical details. It would be a great comfort and relief to me. My affection for him is so strong that I am as much disturbed to-day as though the nearest relative I have had been wounded. This must be my apology for troubling you. I cannot tell you the comfort it is to me that he is in your hands.

The New York Sun later published a statement to the effect that Roosevelt had wired Dr White for advice, and gave other details relating to White's connexion with the case. Dr White was greatly upset and hurried to write Murphy:

The only truth in the whole matter is that when asked a couple of days ago what I knew about the matter I said to some of our Philadelphia people here that I had heard from

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both you and Colonel Roosevelt and that the news was very satisfactory. On that slender basis they built up the little 'story,' as they called it, which appeared in the *Sun*.

It did not seem to me worth while to dignify the matter by writing to the *Sun*, although, of course, that statement that I said the Colonel had asked me about his condition and that I advised him to remain where he was is in fact an absolute and baseless falsehood. That is the case, although if the Colonel *had* asked me about his condition I would have advised him just exactly in that way.

As I have already written you, it has been a great comfort to me to know that he was under your care.

J.B.'s reply was immediate and direct; it put at rest any possibility of injured professional pride:

I have received your letter concerning the article in *The New York Sun*. I had neither heard of it nor seen it and it would not matter if I had. I know enough about newspaper people not to pay the least attention to anything that is written of in that style.

There were letters and telegrams from other doctors, friends of Roosevelt's, and from medical cranks, quacks, and crackpots. Doctors in small communities were chosen as spokesmen for the local and county political organizations to keep in personal contact with Murphy to get first-hand information as to their hero's health. Business firms attempted to ensnare Murphy into using their products in treating Roosevelt. One remedy, newly discovered, called "Hottentot," was offered to him as a sure method of conquering blood-poisoning. This was the beginning of a patent-medicine age, and every manufacturer, regardless of the nature of his product, wanted it to be used on the ex-President. Some months after Roosevelt's recovery J.B. had to censure an "airifier" company operating in Chicago for using the ex-President's name in connexion with its advertising. J.B.

was plagued by newspapermen and by Roosevelt's well-meaning friends. The picture held the spotlight of the world, with Roosevelt holding the centre of the stage and with Murphy looming large behind.

Newspaper publicity never did agree with J.B.; it always made him suffer sooner or later. Criticism of him began as soon as he assumed charge of his famous patient, but his condemners refrained from shouting aloud until the ex-President was on his way home. Then they loosed their venom. To be perfectly candid, there was certain latitude for criticism. J.B. had transgressed the ordinary civilities, to put it mildly, in not notifying McArthur and Ochsner of the change in Roosevelt's plans. He might have telephoned to them as soon as he arrived home and learned of Nettie's conversation with Bloodgood. Observance of this courtesy would have precluded much of the mud-slinging which began the minute Roosevelt stepped on a train for New York. Serious charges, including stealing the patient and deliberately seeking notoriety, were brought against him before the judicial council of the American Medical Association. Murphy was on trial.

It was argued in Murphy's favour that the publicity he had received as a result of treating such a prominent man as Roosevelt was unavoidable. That was true. It also was argued that every bulletin issued during the illness was co-signed with Bevan and Terrell. Those bulletins, it was pointed out, which had been published in New York papers over J.B.'s signature alone were practically duplicates of the Chicago bulletins and in no way unethically stated the situation. His whole fault, it was argued, lay in not notifying his colleagues that he had been asked to take sole command. Could he have helped it that well-meaning friends of Colonel Roosevelt, some of them high in the ranks of the new political party, had told Dr Bevan that the patient was to go to the Presbyterian Hospital? What if the operating-room, the X-ray department, and the

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entire resident staff of the Presbyterian Hospital had been held in readiness for Roosevelt's arrival, was it his, Murphy's, fault that the patient wanted to come with him? And, further, against the charge of stealing the patient: he, J. B. Murphy, had no sympathy with the doctor who complained of his colleagues spiriting patients away from him. His working philosophy was that the patient demanded and paid for the best medical or surgical attention, and that a doctor could not prescribe for a patient against the latter's wishes. If a patient came to him in preference to another it indicated to him that the patient felt more confidence in his ability. Was he, Murphy, the best surgeon in Chicago or wasn't he? Every one knew very well he was, but no one knew it as well as he.

The trial came to nothing, and the public's regard for him rose even higher than before.

That Roosevelt-Murphy meeting was the beginning of a warm friendship. Upon several occasions they visited each other, and between times carried on a sporadic correspondence. One letter J.B. wrote him the Colonel marked for posterity, as is evidenced by Roosevelt's reply:

MY DEAR DR MURPHY,

I wonder if you realize what a fine and generous letter you have written. I shall keep it always, and my children and my grandchildren shall have it. My dear doctor, I not only owe you much from a bodily standpoint, but I owe you even more from the standpoint of friendship; and you have helped and strengthened me more than once.

The Progressive party headquarters in New York lost no time in enrolling Murphy as a "Bull Moose." The doctor was asked to and did contribute ten dollars towards the "Noble Cause."

On October 25, having returned to New York, Roosevelt filed a suit against George A. Newett, publisher of the

Ishpeming (Michigan) *Iron Ore*, a paper with a small circulation among mining people. Two days before his attempted assassination the newspaper published an article charging Roosevelt with being a drunkard. J.B. was requested to testify on Roosevelt's behalf, and one of the bulletins to the Press which Murphy had dictated during his care of the Colonel was produced as evidence, the one in which this sentence appeared: "We find him in magnificent physical condition due to his regular physical exercise and his habitual abstinence from tobacco and liquor." This, of course, was absolutely unnecessary and, in fact, out of place in such a bulletin. But in the light of the Colonel's suit it grows evident that the patient had asked that some such allusion to liquor be made. Since he was unable to attend the trial J.B.'s testimony was taken by deposition. His conclusion was that Roosevelt was a temperate man. The trial resulted in a verdict in favour of Roosevelt, and he was awarded damages of one cent.

CHAPTER XX

WITH the motor-car J.B. was a pioneer. He was one of the first doctors in Chicago to purchase one of the contraptions for use in his work. Temperamentally he and the motor-car were ideally suited, even if he never did understand what went on inside it. He liked its power and he liked its magnificent fifteen-miles-per-hour speed. Horses and carriages he relegated to his wife and daughters; they, being ladies, should never be in a hurry anyway, unless to keep an appointment with him. "The motor-car is the coming thing," he told every one. "Some of these days they'll be more numerous than carriages." He had had that finger on the pulse of the future before. The doctor had ridden on horseback with medicine in saddle-bags, and he had ridden in a shay behind a spanking team; but now, in the world's progression, he had come to a newfangled means of locomotion, the "gas buggy," which would get him there faster still—if the motor and tyres held out. "Speed is what you need in an emergency," he said, "and there's nobody meets as many emergencies as the doctor." He wanted Mercy Hospital to order motor ambulances too. But it was pointed out that such a vehicle would make too much noise and disturb the patient—and what would they do if the ambulance broke down?

The *Journal* of the American Medical Association devoted a section to the subject. The article was entitled, "Satisfaction in Automobiling—a Symposium by Physicians on their Experiences with Motor-cars—How to Secure the Most in Comfort and Help at the Least Expense." Here it was claimed that the motor-car was one of the most economical means of

transportation yet devised; the cost, as compared with that of a horse and phaeton, was about one-third. Suggestions were offered as to the most efficient way of getting out of a mud-hole. One ingenious doctor devised a loop of bath-tub chain which could be attached under each mudguard so that the tyre would constantly touch it; the purpose was to remove a nail before it entered the tyre. The correct way of cranking the motor was illustrated; and X-ray plates were shown of fractures and dislocations of the forearm and wrist, which came to be known as the "chauffeur's fracture." Architectural plans for garages alongside the house and for a combination stable-and-garage were offered, because the faithful mare often had to come to the rescue of a faulty engine. A key to the names of motor-cars was given, as well as games for doctors' wives to play at luncheon parties which involved the names of prominent motor-car manufacturers.

Because he found the electric motor more reliable as well as more understandable, J.B. gave up the "gas buggy" for an electric brougham. He would park it in any place in his haste, and generally in the middle of the street. The police officers on Michigan Avenue or Monroe Street, near his office, were often called by irate motorists to push the machine out of the way so that they could get past. Sometimes, when there was no policeman available, the car would stand in the middle of the street all day, until 7 P.M., when his office hours were over, while other vehicles crawled round it.

The family was thoroughly aware of J.B.'s almost childish joy in his car, and his daughter Cecile tells an amusing story about it. One Christmas they were going to the West Side to have dinner with Nettie's mother. They were well on their way when the eccentric driving of the family chauffeur threatened them with trouble. Finding that the man was hopelessly drunk, J.B. sent him home, then mounted the box and drove the car himself. In those days it was customary

for chauffeurs to ring a bell in greeting as they passed each other. J.B., resplendent in formal clothes and top-hat, found this a game to his liking, and in spite of the protests of his wife and daughters loudly clanged his bell all the way to the Plamondon home.

J.B. had changed his routine somewhat because of the large number of doctors who attended his clinics. On Mondays and Thursdays the student clinics were held; on Wednesdays and Saturdays visiting doctors attended; and Tuesdays and Fridays were reserved for dressing wounds and calling on patients.

The new amphitheatre at Mercy accommodated five hundred spectators, and the daily attendance at his clinic averaged one hundred and fifty. As many as thirty-five states, as well as Canada and foreign countries, were represented at one time in the audience. On those mornings when he had clinics J.B. would never appear until the last minute, or until his audience was properly assembled. Meanwhile, as the spectators filed in and took seats, his interns and assistants would set the stage. They would post the list of operations scheduled for the morning on the frosted glass windows facing the gallery; they would arrange charts and tables of these cases on the walls and blackboards, and would make ready portable microscopes, and sections of tissue from patients previously operated upon. Then, like the actor that he was, J.B. would stride into the pit, his tall, spare, almost gaunt figure accentuated by the white surgeon's gown. He would plant himself in the centre of the circle of the amphitheatre, look his audience over, and after satisfying himself as to who was present—or at least the number—he would begin.

In spite of his power of complete self-expression and commanding and gracious presence, the first impression of one

of J.B.'s speeches was disappointing. He never learned to control the shrillness of his voice in beginning an address. But as he continued to speak the tone of his voice gradually ceased to distract, and soon all thought of it was forgotten in the intense absorption in the subject.

Questions and answers, questions and answers—asked and answered by himself maybe, but then suddenly thrown at a student. There was no patience in him. The student was supposed to know; and if he did not know he was supposed to ask questions. But if a poor answer came, or if the questions were faulty, the raillery came in torrents—never ill-natured or rancorous, but with sufficient sting to leave a memory to stimulate future work. One intern, now a successful surgeon, often tells of a morning he was called on. He had been assigned to write the history of a patient suffering from a typical case of appendicitis, but owing to bacchanalian wanderings the night before he had not done so. Not without ingenuity, however, finding himself caught, he rose and read a striking story of the patient, fluently describing an attack the patient had suffered, giving her past and family history. J.B. highly complimented him on his work, and the young man was just about to sit down and indulge in a deep sigh of relief when the blow came swift and devastatingly shrill: "Doctor, turn back the pages and read again about the attack she had six months ago!" Unable to repeat from memory a description which had never been written down the young man retired in confusion.

J.B. had a way of building up suspense, which is another indication of his dramatic ability. In discussing any case his arguments would warm imperceptibly; the coherent chain of questions narrowed, and slowly there would be generated a sense of excitement, of impending revelation. All the discussion and argument, pro and con, led up to something every one sitting on those benches fairly ached to learn. As the end

came nearer, as the time came for the climax, a question barked at one of his audience would hang unanswered on the silence. Intolerant of such stupidity, J.B., in a clamorous, almost menacing voice, his face strained, his arm outstretched in dramatic gesture, would hurl the question at one after another, until at last the answer would come. And then after a final brief summary the clinical journey was over, its end well worth the mental anguish of the precarious ride.

Then he would operate.

Like every work of art, an operation is an expression of a man's character and temperament. There is the brilliant operator for whom it is the quality of effort that counts; his idea of operative surgery is something swift and dexterous which dazzles the onlooker and excites his wonder that such things can be done by human hands. To such a group belonged the early surgeons, such as Nicholas Senn, who were forced to develop speed and accuracy to compensate for imperfect anæsthesia. As for J.B. as a surgeon, Sir Berkeley Moynihan said of him: "Murphy was one of the true faith. He believed in safe and thorough work rather than in specious and hazardous brilliance. He was infinitely careful in preparation and, compared with many, was inclined to be slow; but every step in every operation was completed deliberately, accurately, once for all. It led inevitably to the next step, without pause, without haste; that step completed, another followed. And so, when the end came, a review of the operation showed no false move, no part left incomplete, no chance of disaster; all was honest, safe, simple; it was modest rather than brilliant."

Throughout the operation he would talk for the hospital record and for his *Surgical Clinics* notes, which he had just begun to publish. He wasted no time as he talked, operating all the while and expressing aloud the purpose of each operative step. "Let the record show" became a familiar expression in his clinic. When the operation was done he

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would draw his stool near the front row of seats, cross his legs, rest his elbows on his thighs with his gloved hands clasped together, and talk of surgery in general, of this particular case, or of his mistakes. The earlier passion was gone now. He had caught up with his ambitions; he no longer had to prove to anybody, including himself, that he was a great man; he no longer had to, or could if he wanted to, tell all he knew. What he had learned from experience and from books, as well as his wonderful skill, were now displayed quietly and modestly.

During one of those quiet talks following a clinical operation J.B. was asked if he had reached the point as a surgeon when he could dismiss the depressing influence of critically ill patients when he went home for the evening. His answer is illuminating: "No, doctor. The moment I enter the door at home Mrs Murphy recognizes that I have a patient trembling in the balance. Invariably she says, 'You should not allow yourself to become depressed over your patients. You have done your best, and probably have rendered a service quite as good as anyone else could have done.' That is not quite my way of looking at it," J.B. went on. "I ought not to lose a patient upon whom I have operated. I should possess that refinement of judgment which would enable me to determine whether or not a patient's reserve warrants the operation indicated. If in doubt I should await a more propitious time."

This was 1913. He was fifty-six. He had learned much, had come a long way, but he had not learned how to be impersonal about humanity—sick humanity.

III

Surgical Clinics was the outgrowth of a demand for publication of his clinical presentations. Doctors in smaller communities kept pressing him for his notes, until at last he

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sought out a publisher, the Saunders Company of Philadelphia, and they brought out *Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago*. The publication was an immediate success, and J.B. was forced to devote a great deal of time to the preparation of material and the reading of proofs. This work, however, proved too exacting on top of his practice and teaching, and he began looking about for a younger man of editorial capabilities who might do it for him.

It was no easy matter to find one, however, who would agree to leave his style of writing unchanged—and those he interviewed couldn't be blamed for trying to change his style. J.B. still wrote as though he were trying to scratch himself out of a steel safe, and he argued that his surgical notes as he wrote them said what he wanted to say in the way he wanted to say it and that any attempt to improve their literary style would lessen their effectiveness. To his great distress every young man he interviewed would take a piece of copy and attempt to show how it could be improved. Whereupon J.B. would show him the door and go back to doing the work himself.

Looking about for some one who wanted to work in the surgical clinic with him, and who at the same time could take over the editing of his *Clinics*, he heard of a bright young man in St Louis and sent for him. The young man, Major Seelig, arrived to meet J.B. and discuss the possibility of an association with him. Franklin Martin, who had recommended Seelig, introduced them; and the three spent a pleasant hour at lunch. To Martin's and Seelig's surprise, J.B. did not mention the purpose of the meeting. But the next day J.B. invited the young man to go through Mercy Hospital with him on his rounds and later took him to dinner. The trip through the hospital was done in the usual Murphy manner. Seelig was exhausted following the great surgeon from room to room and

visiting patients each more interesting than the last. During the "peripatetic *tour de force*," as Seelig later referred to it, J.B. took occasion to say very definitely that those patients they called on were all private paying patients, that some time previously he had made up his mind to spare himself as much as possible the obligation of a charity service. So his desire for monetary gain had not waned with the years. On this principle, with wise investments, he had made himself a millionaire; now he was on his way to a second million. Memory of the poverty of his childhood and of his ancestors still made him gather all he could get.

At dinner J.B. began his questions. His first was: "What is your idea of surgery?"

As briefly as possible Seelig, who, contrary to those who had gone before him, was not in the least awed by J.B., explained. He had assiduously devoted himself to the academic side of surgery, he said, along with building up a modest private practice, with the hope that when he had become a full-fledged clinical surgeon he would be able to reason properly, to evaluate facts accurately, and to extract from surgery the essential joy that is in it.

Promptly J.B. said, "There your head is right. What is your idea of money?"

The young man said, "I don't think very much of money. I value it for its power to purchase creature comforts, but I have no cumulative monetary instincts."

"There your head is *wrong*!" And reaching across the table, he pointed to each of his extended and separated fingers in turn. "This," he said, pointing to the first one, "represents position in life; this, books; this, education of your children; this one, travel; and this one, essential luxuries." Then, drawing his hand to him and at the same time pulling all his fingers and his thumb together until they formed an inverted cone, he pointed to the apex of the cone and said, "Money."

J.B. then leaned across the table again and said, "How would you like to work with me?"

Seelig promptly replied that he would consider it a rare opportunity. But let him tell the rest of the story:

"I went on to add that I was in no sense of the word concerned in financial remuneration, but that I was very much concerned regarding the maintenance of my own independent personality, which I could not permit to be submerged in the dazzling, reflected light of his glory. In other words, I said, 'I should have to share, Dr Murphy, in all the clinical advantages that accrue from this remarkable surgical material that you have housed under one roof—I am willing to do your bidding at all times, but what is yours clinically must be mine clinically, just as what is yours materially interests me not a bit.' He did not hesitate ten seconds in his reply, which was simply this—'I have never done that for anybody.' Of course, that answer put a quietus on the conference, and we left the restaurant in Dr Murphy's car. We drove to his office, where he met Mrs Murphy, who brought him a clean collar and an opera hat. Mrs Murphy got into the car; they kindly drove me to the station, where I alighted to take my train, leaving them to meet their social engagement."

Of the qualities which go to make a great surgeon not the least is the capacity to train great pupils. It is essential to the progress of surgery that young men be taught to carry on. Service to humanity, inspiration, a surgical conscience, and dedication to scientific truth are awakened in potentially great young men by great surgeons—and by great surgeons only. It was in this respect, as a surgeon, that J.B. was not fully successful. His immediate assistants did not become great surgeons. They came to him full of energy and enthusiasm, but trying to keep up with J.B.'s inhuman pace devitalized them, drained them dry. He set a pace that no other man could follow and, furthermore, he was too masterful with these

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young men. He directed their experiments, supplied their ideas, and even dictated their private lives. Under him they did good work, but none of them became a successor to the man of genius.

But for this lack there are compensations. He could not pass on to the few his amazing mental and physical activity, his quick grasp of fact, his imagination and skill, but through his clinics and his writings he reached young men in surgery the world over. There are few surgical clinics in the world in which something taught by Murphy, or inspired by him, has not crept in. His methods were copied closely; he impressed his ideas on surgical teaching, surgical diagnosis, and surgical technique. It is astonishing how much he taught the surgical world.

IV

In 1913, in company with Cushing, William Mayo, and Crile, Murphy was made an honorary Fellow of the Royal College of Surgeons of England. After this ceremony in London he and Nettie went to Carlsbad, and after Carlsbad to Vichy. At Vichy Nettie received a prize as the smartest dressed woman in a fashion show, although as they strolled about neither of them had known the show was going on. Needless to say, both were pleased; and Carson, Pirie, and Scott's department store in Chicago made much of the fact that the beautiful Mrs Murphy had worn a frock of their making and design.

Upon their return to Chicago in September J.B. gave an interview to the Press in which he advocated a city ordinance which would require all venereal cases to register themselves with the health department and undergo quarantine. It is to be noted that to-day the same idea is being put forward, that doctors and newspapers all over the country are still working for the very things that J.B. battled for. At that time the

newspapers avoided calling the diseases by their well-known names—that being outside the pale of even bar-room talk. People with a venereal disease in many cases were afraid to mention the fact to their doctors. That it was a sensational topic, therefore, cannot be denied. But it was also a very important subject, one which needed courage, sense, and conviction to air it. As usual J.B. was allergic to printer's ink, and there broke out against him a storm of criticism, charging him with violation of every decency in order to gain publicity.

But it was another and infinitely smaller affair that brought him before the committee of the Chicago Medical Society. In another interview published by a newspaper, which included his picture, he recommended the use of oil of eucalyptus in cases of scarlet fever. As is almost universally and invariably true in technical interviews as published by newspapers, the writer of the story misquoted the doctor. The article intimated that oil of eucalyptus would prevent the disease. What J.B. said was that the oil should be used in the stage of desquamation to keep the skin from drying and scaling so vigorously. That he was misquoted did not help his position with the medical profession.

Again, and this time with a vengeance that once and for all intended to settle the problem of Murphy, he was haled before the ethical relations committee of the Chicago Medical Society; that same committee which had been so confused, sterile, and ineffective in investigating the fee-splitting scandal. Rather than bring the case against him down to anything so specific as the oil of eucalyptus interview, it was charged that Murphy received too much newspaper publicity. In his defence J.B. replied that he had never deliberately sought exploitation in the Press, that upon most occasions he had been unable to avoid it, and that at various times he had been misquoted. "Words have been put in my mouth that I have never said, and reports of my work have been printed that were incorrect."

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The charges were dropped without disciplinary action, but the impression made on the profession was that Murphy had been proved guilty as charged and was let off easily because of his prominence. It seems strange that the medical profession refused to see that J.B. was 'news.' His surgical work and his clinic, attended by surgeons from all over the world, had made him a public figure; what he had to say on any medical or public question was of importance to the newspapers.

Circumstances always seemed to combine to keep his name before the general medical profession in one way or another. In June, before going abroad, he had attended the annual meeting of the American Medical Association in Minneapolis and had been appointed by Jacobi, who succeeded him in the presidency, as chairman of a committee to foster a national department of health. This question, naturally, was alive with news interest, both to the profession as a whole and in the public. The aim of the committee was to bring about legislation towards establishing a Federal department of health with a member of the President's cabinet in charge. There were nine members, including the chairman, on the committee. During the committee's preliminary work the group became divided on the question of how to set about securing legislation. Murphy, busy in Chicago, was unable to give much time or thought to the question, and so relied on Dr W. A. Evans, a member of the committee who had devoted himself to public-health problems. When the time came to read the report which Evans prepared five of the members would not sign it. But J.B. and two others besides Evans signed it, so Evans read it anyway.

One of the five members who had not signed it moved that it be indicated in the minutes of the meeting that it was a minority action. The entire matter was then referred to the committee on legislation, where it was proved that Murphy had permitted another to sign his name for him. He was

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censured severely for sponsoring a minority report which did not gain the approval of the Association as a whole. Strenuous objection was made, for instance, to the recommendation of J.B.'s group that a lobbyist be employed to watch over public-health legislation in Washington; this, the critics claimed, was beneath the dignity of the profession and smacked too strongly of a rough-and-ready fight. Section by section the report was torn to pieces, and J.B. and his three supporters were thoroughly spanked before the house of delegates.

In this entire matter Murphy was in the background until the time came to chastise. His name and reputation were used to obtain influence for a movement which, although worthy enough in itself, had not the support of the council. Henry P. Favill, who acted as judge of Murphy and his minority group, probably did not realize that the ideas incorporated in the report were those of Evans and not Murphy. After the word-thrashing which Favill gave him J.B. met his denouncer in the lobby of the hotel. "Well, Henry," he said, "you certainly licked us that time."

v

On July 19, 1914, J.B. was on board the *Lusitania* bound for Liverpool to see Robert Jones do some special surgical work. He then went on to Leeds to visit Sir Berkeley Moynihan, and finally to London, where the Clinical Congress of Surgeons was to hold its meetings. On the ship he had written to his eldest daughter, who had but recently been married:

I am convinced that I am a spoiled child. I cannot travel without Mother and have fun any more. I am not going to try in the future.

Declaration of war found eleven hundred doctors stranded in London. There was a mad rush for their homes. J.B. returned on the *Mauretania* on August 9. Upon his return,

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at the request of his British colleagues, J.B. organized from the staff of Mercy Hospital a medical unit for service with the British Expeditionary Force. With his brilliant associate, James M. Neff, in charge the unit sailed on June 15, 1915. J.B. wrote to his friend Sir Alfred Pearce Gould:

Sunday night the Chicago hospital unit which I had organized through Dr James M. Neff started for Europe, and probably will arrive there in about ten days. We believe we succeeded in procuring first-class men and women for the service, and we expect them to render good service to the suffering and wounded of England or France, wherever they may be stationed.

Sir Alfred replied:

It is a great comfort to us all on this side—particularly to your colleagues—to know that professional men of influence, like yourself, sympathize with Great Britain in a fight which we never wanted and would willingly have avoided if we could honourably have done so.

In this war we are seeking neither territory nor aggrandizement, and it rejoices us to note that Americans are quick to realize that the struggle is not only to defend ourselves, but to uphold civilization, international morality, and freedom against scientific barbarism.

J.B. was not to live to see his own country enter the war.

CHAPTER XXI

SINCE his bout with typhoid fever J.B. had never fully recovered his strength and that *innerer Betrieb* which always had been such a glowing part of him. Early in 1912 he had had an attack of severe pain in his chest, over his heart, which radiated down his left arm—not unlike his old neuritis pain, he thought, hoping for the best. But with each pain he became dyspnoëic, pale, and had an overwhelming sense of impending death. He knew what it was, but absolutely refused to face his own knowledge. Considerably alarmed, he consulted his medical colleague, Charles L. Mix.

Despite no sign of a heart lesion, symptomatically there was no doubt he had had an attack of angina pectoris. But J.B. would have none of that diagnosis. "What do you mean by angina pectoris?" he demanded of Mix. When Mix explained that he meant a morbid process secondary to an inflammation of the aorta, or to a hardening of the coronary arteries which supply the heart-muscle, he still refused to accept the diagnosis. He then consulted Frank Billings, who had seen him in an attack as they were leaving a patient's residence together following a consultation. Billings told him his attacks were true angina. When he next met Mix J.B. confessed that perhaps he had been right, but said he expected to consult others. One may suspect him of seeking a doctor who would tell him what he, the patient, wished to hear—an experience he must have had many times with his own patients.

Later that year a mysterious illness characterized by gastrointestinal symptoms caused him to lose sixteen pounds in a period of five weeks. After an exhaustive study by his medical

colleagues and the new professor of bacteriology at Northwestern, Arthur D. Kendall, he was ordered to stop drinking milk and avoid every other form of starch and sugar. Under this rigid diet J.B. was well again very shortly—that is, so far as the gastro-intestinal symptoms were concerned. But the attacks of pain in his chest and arm began to reappear and now with increasing frequency. Occasionally he had to stop in the midst of an operation and sit down until the seizure had passed. One morning an assistant finished his operation while he lay on the floor of the operating-room in agony. When the attack was over he swore his assistants and nurses to strict secrecy. No one was to know—not even Nettie.

Meanwhile, as his fame had spread, so had his practice become overwhelming. To conserve his strength as well as his time it became necessary for him to have an office near the hospital. There was in the hospital grounds a two-story building which had been built originally to house an outpatient clinic for the medical school. With the permission of the hospital's board of trustees and Nettie's approval J.B. decided to remodel this building to house his activities and staff. He and Nettie planned the new offices with as much pleasure as care, and the results were more than satisfactory to them. The reception room was large, well-lighted, and sumptuously furnished. Offices, laboratories, and examining rooms were so arranged that all the men associated with him could be kept at hand. They were successful in creating an atmosphere far different from any doctor's office in Chicago, and because of this it gained immediate attention. A portion of one of the articles in the third volume of his *Surgical Clinics* was devoted to a description of the offices and nineteen photographs of the interiors, including one of J.B. sitting at his desk with pencil poised. The article stated:

All the offices are situated on one floor, together with the laboratories, the X-ray room, the photographic studio, the filing-

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room; only the library and consultation room for the staff, in the front of the building, reached by a short flight of stairs, are on the second floor. The offices are replete with everything for the comfort and convenience of the patient, and, as can be seen from the pictures, with every facility for their examination and diagnosis.

Many of those who disapproved of J.B. and his tactics felt that an effort had been made to surround his office with mystery and drama. This indulgence in lavishness and its subsequent descriptive advertising in his clinical notes would not go unchallenged.

At the next meeting of the American Medical Association in San Francisco, July 3, 1915, the judicial council of the Association, of which Alexander Lambert, Theodore Roosevelt's family physician, was chairman, was presented with charges of unethical practices against two members. In the first case evidence was presented showing that the accused had persisted in grossly advertising in the public Press. No defence was offered, and the doctor was expelled from the Association. The other accused was J.B. He must have sighed wearily when he was informed of the charges and commanded to appear before the council and defend himself. It was charged that Murphy had caused or permitted to appear in a publication with which his name was connected photographs and an article which violated the principles of medical ethics in that they were self-laudatory and defied the traditions and were contrary to the ideals of the medical profession. The council condemned the publication in question (*Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago*, issue of December 1914) as being offensive and in bad taste. But it was evident from the testimony that the accused did not intend the pictures and article as self-exploitation, and the council accepted the defendant's explanation and apology.

Now after all these years of suffering from criticism, he

made an effort to protect himself—at least, he complained so bitterly to Nettie that she installed a secretary in his office whose duty it was to sit behind a screen and write down everything that was said to and by him. Thus a verbatim stenographic report was made of every conversation, was typewritten, and filed away for reproduction at his next trial.

That we may see what kind of a doctor J.B. was to his patients let us take the stenographic report of a case on file and look at his diagnosis and plan of treatment. How sound was his advice? The patient referred to below came to the doctor suffering from lethargy; he claimed it was difficult for him to remain at work.

According to the stenographer's report, J.B. had this to say: "Now as to what you should do next. I will not be satisfied, nor will your doctor be satisfied, unless you go and see the Mayos. The question of how you feel will rule the situation. What they will decide is for them to elect. I would say, coming to me as you do to-day, that I would not operate on you. I would put you on a definite diet and order protracted mental and physical rest. You have had only four attacks, and all of them are atypical; you have an atypical history. The X-ray shows a spot which should be watched. You understand, short-circuiting the intestine is not an operation of great danger, but it is an operation just the same. At the same time I would not have it if I were in your position until a more careful study of the situation had been made. In the first place, if you have an acute ulcer of the duodenum, it should heal. In the second place, you have had no symptoms in your history of a chronic ulcer of the duodenum, if your statements are in consonance with the facts. You have a history of an acute attack of pain in the upper abdomen once associated with temperature, which may or may not mean an ulcer.

"As I have said, there is a suspicious spot on the X-ray

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plate, and this has changed very materially in your pictures to-day. It may be an artefact. It may be a diverticulum in your duodenum without having any ulceration in it at all—a little anatomic pocket.”

The patient said he would not go to the Mayos, and wanted Murphy to map out a course of treatment. J.B. said to him:

“I do not know any reason for your staying in Chicago. What I would like you to do is get away from people, away from work and from mental duties for eight weeks. You need to use the units of your energy in the repair of your engine. Get out into the sun and stay in it all day. The sun’s rays are one of the greatest healing aids we have. If you have a room on the south side of the house get practically naked and let the sun shine on you. Walk. If you will spend some weeks in the country and take on some of the easy habits you will acquire some of the advantages as surgical risks that rural patients have, should you later need an operation.”

A month later the patient, Arthur Brisbane, wrote from California:

I am a man quite different from the one to whom you gave such good advice. You made me avoid what appears to have been an entirely unnecessary operation.

I told ex-Governor Glynn that I had been to see you, and casually mentioned the fact that you are not only the biggest surgeon in the United States, but what is very unusual, a surgeon who knows when to cut and when not to cut, which means a great diagnostician as well as a great surgeon. Glynn’s face lighted up, and he said, “My old friend McDonald has always told me if anything happened to him not to let anybody operate upon him if it was possible to get Murphy there to do it.”

I recall your earnest desire that medical knowledge should be spread through newspapers, the people instructed, the number of doctors decreased, and the amount of medical knowledge increased. I want especially to ask you to give me facts which would combat those who oppose pasteurization of milk.

II

The recurring pains, which had become more and more frequent and more and more painful, now began affecting J.B.'s work to such an extent that he had to slow down considerably. Dissatisfied with both Mix's and Billings' diagnosis, he decided to make a study of angina pectoris himself. Bluntly he told Mix and Billings that they did not know any more about the condition than he did. It was time they were finding out something, he said. It was just at this time that Sir Clifford Allbutt's two-volume treatise entitled *Diseases of the Arteries and Angina Pectoris* was published. Reading it, J.B. underlined and bracketed passages which applied to himself; he wrote marginal notes concerning experiments which were suggested by Allbutt's classical description of the symptoms. Words and ink cannot express the terrific vice-like pain in the upper chest which brings the sufferer face to face with impending death. Allbutt described the pain as vividly as it has been related in words:

It may consist in a weight or oppression, or a severe distress, amounting to intense retrosternal pain, comparable with crushing by a red-hot iron bar; or a vice-like constriction often accompanied by much tenderness or superficial hyperæsthesia. There is often also a peculiar sense of dread, as if the last moment were come. I have failed to discover a case of unmistakable angina in which, whatever the disease of the coronary arteries, the aorta, on careful examination, was demonstrated histologically to be inwardly and outwardly sound.

Allbutt believed it was erroneous to attribute genuine angina to the excessive use of tobacco:

A considerable number of cases arise under the corrosive effects of acute and specific infectious poisons.

On the margin J.B. commented:

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He evidently has no idea that gout is a manifestation of metastatic infections.

When, in discussing the cause of the pain, Sir Clifford stated that it was due to an "increased tension within the aorta and that in health this large vessel leading from the heart enlarges and contracts a great deal," J.B. noted:

How much muscular tissue is there in the wall of the aorta?
Can we have muscular contractions of the aorta in animals by galvanic or faradic stimulation?

Allbutt wrote:

The critical moment for the heart in angina, as in light chloroform anæsthesia, may lie in the first touch; let the organ have time to call up its reserves, and it may be able to fight on, and to fight through.

And J.B. noted:

It was always so in our chloroform accident cases before the patient was asleep.

By this time he had learned more about his disease than those he had consulted. He sent copies of Allbutt's work to one doctor who had made a diagnosis of "pseudo-angina" and who believed that J.B. was unnecessarily frightened. J.B. underlined this sentence of Allbutt's: "Let us hear less of pseudo-angina and more of pseudo-diagnosis."

In spite of the fact that he knew his illness for what it was J.B. continued to work on. The result was that his symptoms grew worse. Two days following Christmas 1915 (he was fifty-eight) he had a severe infection of his nose and throat, accompanied by high temperature. After three days he was up and at work again. Throughout the winter and spring he struggled with his anginal attacks. In April of 1916 he developed a septic sore throat, due to a streptococcic infection. As he lay in bed struck down by this his anginal attacks were

terrific. He became convinced that eating breakfast brought on each morning's attack, so he refused to eat breakfast. It became necessary to carry out an experiment to convince him that it was the exertion of getting up and not the food that brought on the attacks. In this experiment he was allowed to go without breakfast and rise from bed. The anginal attack came just the same. The next morning he ate breakfast in bed without exerting himself in any way and had no attack. After repeating this procedure alternately for several mornings he finally had to admit he was wrong. Now it became quite clear to him that he could no longer expect to resume his former pace; that if he attempted to he would die very shortly of the strain on his heart.

As a direct result of rest and inactivity he was greatly improved by the end of April. For many weeks he had known that there were patients in the hospital waiting for him to get well enough to operate. He wanted to reward their faith in him and insisted on going to work. Dr Mix had been called again and strongly advised against activity; and Nettie, who now sensed the seriousness of her husband's condition, pleaded with him to allow some other man to do the operations. Refusing to listen to his wife and his doctor, J.B. kept faith with his patients and then collapsed. Now he agreed to anything that Mix advised.

Mix ordered him to Atlantic City to rest; ordered him to cancel a paper he had planned to read at the Detroit meeting of the American Medical Association; ordered him to remain in the East, resting, until June. Naturally Nettie went with him. When they returned to Chicago J.B. was knighted in the Order of St Gregory the Great by Archbishop Mundelein. It was the first time such an order had been requested for a layman in Chicago.

He was not yet ready to go back to work, Mix said. So J.B. agreed not to return to Mercy Hospital until the fifteenth of

September, and promised on his return to do nothing save direct the operative procedures and reduce his office hours to three days a week. Thereupon Nettie took him to the Chicago Golf Club at Wheaton, Illinois, where they planned to spend the summer. There his favourite game of golf was denied him; all he was permitted in the way of exercise was a few strokes on the putting-green.

Late in July the heat became intense, continuing into August. There was no relief to be had anywhere. The heat wilted him, wore away his strength. Now the anginal attacks were more severe and occurred as soon as he ate a mouthful of food. For six days, therefore, he refused to eat anything at all, and as a result lost weight rapidly. He had great difficulty in focusing his eyes; he complained of a peculiar taste in his throat and of a marked thirst. To escape the heat he decided to join his old friend Keefe, who was at Mackinac Island.

"I don't know if I can make the trip and get there alive, Nettie," he said. "But it's certain I'll die here—it's so hot!"

Dr Keefe came down to make the trip with them. The Pullman Company complied with a request by Dr Keefe to fit the compartment with fans blowing on ice. "This is heavenly!" J.B. said, when they brought him into the car. Nettie wrote her children of the trip:

It was frightfully hot after we pulled out of the station and there wasn't a breath of air until we reached Hammond. Then a little cool air floated in, and finally we got into a good rain-storm. It lasted about half an hour and seemed to cool off the cars. Father is feeling better and told Dr Keefe he felt he had been resurrected.

We went into the dining-car, had dinner (a very light one for father), and had our beds made up, so he got to bed about eight-thirty. We left the fan on and father let the breeze blow right on him. It began to rain again and thunder and lightning,

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so he had a wonderful time, for you know how he loves to hear the rain patter on the roof.

We have a very nice room and a room for Dr Keefe, so we are very comfortable. We've just had luncheon in our room and father is lying down. I think he is satisfied that it was the heat which upset him and that with a couple of days of this air he will be feeling better again. He certainly looks pretty much washed out though, and there is much room for improvement. He seems too exhausted, but says he enjoys the fresh air and feels relieved.

Father wants you to please send him the 1916 year book; there is one at the house or Miss Maloney can send it. Don't forget—the 1916 year book, *not the "Clinics."*

His inability to eat because of the severe attacks of pain had caused his body to call upon the reserve sugar stored in his liver. Now it had been used up and he could not get enough carbohydrates to give a proper mixture for his metabolism. That Nettie should not know how little he ate he would surreptitiously pass food to Keefe, who would wrap it in a napkin and take it away when they left the dining-room.

But on Wednesday, the day after their arrival, miraculously J.B. was up, dressed, and lively. He went for a walk about the hotel grounds, and then called at Dr Keefe's room. "Jim," he said, shutting the door, "I want to talk to you." He had lowered his voice to a whisper. "I don't want Nettie to hear."

"How do you feel, J.B.?—You look a hundred per cent. better."

"I feel fine—just as many do before the final break. But the end is here for me just the same."

Though Keefe knew J.B. too well to be astonished by this announcement, he tried to remonstrate with his friend.

"Now, Jim, don't argue with me. I want to ask a favour

of you—I want you to make arrangements for me to go home to-morrow night.”

“But, doctor——” They had just come.

“Don’t say anything to Nettie—but I want to get home before the end comes.”

And when Keefe tried to protest J.B. stopped him. So Keefe said, “Very well, J.B. I’ll attend to it.”

“And now,” the dying man said, “get a piece of paper and write down what I dictate, will you, please?”

Dr Keefe wrote:

I want a post-mortem made after my death. You will find plaques of calcification in my aorta and destruction of its lining membrane. Those changes have been produced by an infection of long standing somewhere in my body. There are two other points I want checked carefully: my appendix, because I had appendicitis when I was a boy, and when I was in Germany studying I had a kidney infection, so look carefully at my kidneys.

Here was a man more concerned with his autopsy than in living. Had he been given one wish doubtless he would have wanted to perform the autopsy on himself, because there was nothing in this world he wanted so much as to know the causes and effects of his illness, of the disease which was striking him down.

“Don’t be upset, Jim,” he said to his recruited amanuensis. “I just want to be sure those things are attended to.”

Dr L. L. McArthur, who had been his junior intern during their student days at the County Hospital, was spending a vacation at Mackinac Island. He heard of Murphy’s illness and went to call upon him. J.B. insisted to McArthur that he was much better, in spite of his obvious state of acidosis. McArthur hurried away to the local pharmacist and had made up a large quantity of sodium bicarbonate solution, which was delivered

to J.B. with explicit instructions for him to take it. Here was his old junior giving orders; he wouldn't have thought of doing it in the old days. Nettie mentions McArthur in a letter to the children:

It is Thursday morning and Father has not done as well as I had hoped. That terrible thirst keeps up. Last night at dinner he had to lie down between each course; he was so exhausted. He has been taking very large doses of bicarbonate of soda, but nothing seems to relieve him.

He is still in bed and doesn't seem to care about getting up. Dr Billings is coming to-morrow to visit Dr McArthur, and I am going to ask him to see Father. Poor darling! I am so worried.

God bless you all and pray that our Papa will get well.

At five o'clock the next morning—Friday, August 11—Nettie knocked on Dr Keefe's door. She was weeping. "J.B. has never given morphine to a patient he thought would live," she sobbed—"and now he's asking for it."

Keefe tried to console her: "But when people are in pain of this kind they will take anything for relief."

"Yes, doctor. But I know it's worse than that."

Keefe administered the morphine, and later that morning went down to meet the boat and Billings. McArthur also was on hand to meet Billings, but the latter did not arrive. Nettie was so anxious to have a doctor's advice that Keefe asked McArthur if he would come again to have a look at Murphy. Keefe and Nettie had been up most of the night with J.B., whose attacks were increasing in repetition and severity; they were almost frantic.

"Good morning, Mac," J.B. greeted his old friend. "I feel as helpless as I did that day at the County when you and the boys put me in a strait-jacket." He laughed. "Guess I boasted too much that time. You had to use chloroform, though, didn't you?" McArthur agreed that they had. They

talked of this and that, of holidays; and J.B. said it was good to take holidays, for otherwise a man would wear himself out. McArthur had been on his way to play golf. J.B. insisted he go on and play. When McArthur was about to take his leave J.B. said, "Will you come in again this afternoon, Mac? It'll do me good to talk this over with you."

McArthur returned shortly after lunch.

"Well, Mac," J.B. said quietly, "I'm sure the end's here."

"Why, Murphy—that doesn't sound like you!"

"Mac, we've known each other too long to have you beat about the bush with me. I know this is all there is. In all probability my trouble began eleven years ago, in 1905, when I had to go to Glenwood Springs because of the pain in my left shoulder and arm. We all thought it was neuritis. Then it quieted down until after I had typhoid—then it lighted up again. Evidently all that time I was developing a mildly degenerative aortitis. Then came that streptococcic throat infection, and I must have an ulcerative aortitis now. I know the diagnosis of angina pectoris is correct. I also know that the eventual termination can't be postponed. If I'm through I want to quit right away. I don't want to linger after my work is done."

"I think you're taking this too seriously, J.B."

"No, I'm not, Mac. I've had Keefe make some notes for me, and I think they'll find that my infection came from some focus which in itself doesn't cause me any trouble. I could have won against my original trouble. I expected to win all the time, until last Monday. Then I found I had sugar in my urine and an acidosis—that, on top of the other, is too much for me. The acidosis is a starvation affair, but I can't eat without this terrific pain."

"I'm going to make up some more solution of sodium bicarbonate in Ringer's solution for you to take, J.B.," McArthur said. "I'll go now and get it."

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"Before you go, Mac," J.B. said, "you and Jim help me into Nettie's room, will you?"

"We'll ask her to come in here. You mustn't exert yourself."

J.B. insisted that they help him to his feet. With a forcible collection of his strength he managed, between his two friends, to reach the doorway of his wife's room. At sight of them Nettie came towards him. He took two steps along, and, as he reached her, collapsed at her feet and died.

III

To imagination surgery owes much of its progress during the struggle of man for continuance and betterment. It is one of the qualities which raises a surgeon above mediocrity. The first to dare to sever a crushed leg and sear the stump with fire; the first to use the freshly cut and peeled branch of a tree to splint a broken bone; the first to tie off a bleeding vessel; the first to recognize the value of antiseptics; the first to administer an anæsthetic to relieve suffering—these were the pioneers of surgery, endowed beyond their fellows with imagination.

Each rising civilization has produced its great doctors, serving and saving humanity to the best of their ability and leaving behind them records which are treasuries of observation. The urge to seek new truths, personal and professional honesty, unselfish service, judgment and industry, have been linked inseparably with imagination in the characters of these men. To these characteristics add technical dexterity and the ability to teach and stimulate others and the possessor has the vehicle for the translation of these qualities into surgical eminence.

There were those who seriously questioned Murphy's personal and professional honesty; but there were none who

doubted his possession of all the other attributes of a great surgeon. He dramatized his personality, his profession, his patients and their ailments, his relation to his colleagues—and by such methods made the public conscious of what surgery could accomplish for them. He displayed the wares of surgery in the most attractive wrappings.

It has been argued that Murphy presented few original ideas; but greatness in surgery, as in anything else, may be obtained by recognizing the possibilities in the work of others and utilizing their ideas in ways never imagined by the discoverers. He was far ahead of the majority of his contemporaries in every branch of surgery. He worked like a madman, at least with a madman's zeal, to learn all he could of surgery and of disease. He learned much and he untangled it as well as he could for the layman as well as for the profession. If progress is the development of ideas from mind to mind, then the progress of surgery owes much to J. B. Murphy. The esteem in which American surgery is held abroad was due in large part to the forceful presentation of his clinical discoveries. It is surprising how much of what the surgical world knows to-day was taught by Murphy. He was among the first to develop the surgery of the appendix, suture of blood-vessels, surgery of the lungs, surgery of the joints, surgery of the intestinal tract—including the perfection and use of the Murphy button.

Unfortunately he was pursued throughout his professional life by the thousand-tongued power of calumny. Many of his actions as they stand alone, viewed from this distance and judged by our present standards, are open to criticism. He challenged and re-challenged the surgical world because that was his nature, and much of his suffering throughout his life may be traced to that fact. He tried to despise the opinions of his fellow-doctors, yet he wanted nothing so much as their approbation. Apparently he craved the fiery ordeal which

evoked his greatest energies, which scourged his life. That he suffered at the tongues and pens of his colleagues is not so important as the fact that he met their attacks with an offensive of scientific productiveness.

There was good and bad in this man—and in abundance on both sides—but there were other things too. There was great brilliance and downright stupidity; there was charm and the power to irritate; ambition, with all ambition's ugliness as well as its beauty. He was merciless and tender at the same time, strong and weak, blind and all-seeing. Because he was so criticized by his fellows, his character might be idealized to make it appear heroic, essential traits might be discreetly veiled to win admiration for his logical position in surgery, but Murphy would have preferred to let his work speak for him—to "let the record show."

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